

THE NATIONAL Provisioner

Leading Publication in the Meat Packing and Allied Industries

LABORATORY CONTROLLED

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PRAGUE POWDER

Registered U. S. Patent Nos. 2054623, 2054624, 2054625, 2054626

THE GRIFFITH LABORATORIES

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VACUUM MIXING is profitable in Sausage Making

By removing all air pockets and tiny air particles from the meat, the BUFFALO Vacuum Mixer turns out a smoother, more condensed emulsion of finer quality and greatly improved color.

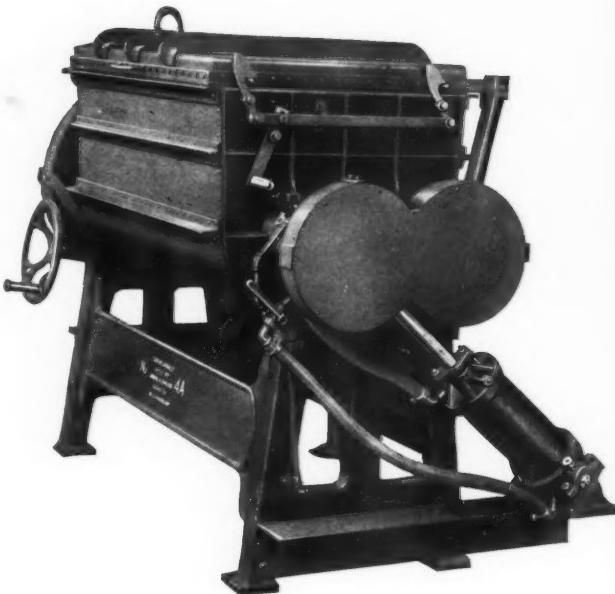
Because all air is removed from the emulsion there is no place for bacterial growth to get a start—products mixed in this manner possess keeping qualities that were heretofore impossible to obtain.

The compactness of product allows 20% more meat to be stuffed into every casing, thereby cutting casing costs proportionately. In addition, vacuum mixing reduces smokehouse shrinkage by as much as 40%.

Vacuum mixing makes for a much more uniform product due to a more perfect distribution of cure and seasoning.

Sausage makers claim that, in the manufacture of summer sausage, vacuum mixing cuts drying time 25% or more.

Vacuum mixed products when cooked in vats will sink downward, below the surface of the water. This eliminates the necessity of having to cover the vat and also makes it unnecessary to prod the sausage, cutting to a minimum any loss which might result from this action.



All sausage manufacturers who have installed BUFFALO Vacuum Mixers report that they have found vacuum mixing most beneficial and profitable. In many instances a comparison between a product mixed in the ordinary manner and one that has been vacuum mixed has been enough to induce a manufacturer to install a BUFFALO Vacuum Mixer.

Write for illustrated catalog and details, today.

JOHN E. SMITH'S SONS CO., 50 Broadway, Buffalo, N. Y.

Manufacturers of a complete line of Sausage Machinery

Sales and Service Offices in principal cities



Buffalo QUALITY SAUSAGE MAKING MACHINE



Lesson for Today

MODERN INDUSTRY is learning its greatest lesson today . . . *the importance of doing a job well!* York men are proud today to represent a company that for 57 years has done the very best it could . . . in making machinery *right* . . . in selecting it conscientiously for the job it had to do . . . in installing it properly. And those who have York refrigeration and air conditioning in their plants today are proud of their judgment in choosing it, possess a priceless advantage in these times when new machinery is difficult to get. But, we urge you, protect your good fortune. Inspect your York equipment thoroughly. Order at once the renewal parts you may need to assure original efficiency through the months of peak production ahead. If you wish we'll be glad to send a York engineer to help. But be sure to let us have your orders for renewal parts, York Oil, cold storage equipment and materials . . . quickly! York Ice Machinery Corporation, York, Pennsylvania.



YORK REFRIGERATION AND AIR CONDITIONING

"Headquarters for Mechanical Cooling Since 1885"

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THE NATIONAL Provisioner

Volume 106

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Number 8

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DAILY MARKET SERVICE

(Mail and Wire)

E. T. NOLAN *Editors* C. H. BOWMAN

The National Provisioner Daily Market Service reports daily market transactions and prices on provisions, lard, tallow and greases, sausage materials, hides, cottonseed oil, Chicago hog markets, etc.

For information on rates and service address The National Provisioner Daily Market Service, 407 So. Dearborn St., Chicago.

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Publication Office: 407 So. Dearborn St., Chicago, Ill.
Official Organ, American Meat Institute



Meat and Gravy

TEN SILVER MONTHS are left—since we all wasted the golden ones!

Nineteen forty-two is the critical year in the history of the United States!

We can win this war only if we provide a great increase in production of military goods during the rest of 1942!

These were the grim words of Donald M. Nelson, Chief of the War Production Board, to a conference of business paper editors in Washington last week. Although he was speaking on "Conversion," a subject which concerns other industries more directly than it does meat packing, we wish every meat plant owner, executive, foreman and worker—yes, every American—could have heard Mr. Nelson's analysis of the tough spot we're in. James S. Knowlson, head of WPB industry operations, also summed it up succinctly in these words:

"Time is a hungry turkey buzzard, waiting to pick our bones."

★ ★ ★

COMING ATTRACTIONS: Have you ever wondered how the "champion on the hoof" at the big livestock shows came out in the carcass grading? We got interested in this problem during the last International, and will soon present some revealing facts regarding variations between live placings and carcass gradings. . . . Other informative articles soon to appear will deal with the care of inner tubes, elimination of rendering plant odors and other topics of current interest.

★ ★ ★

Perhaps the nation's salami producers have overlooked a possible outlet for their product! Running out of frozen sardine bait recently while fishing for striped bass, a San Francisco angler substituted a bit of salami from his lunch basket. A four-lb. bass which went for the tasty morsel was promptly landed. Subsequent offerings of beef and cheese brought no response.

★ ★ ★

The U. S. Army has met its first industrial conscientious objector—the 239-year-old Quaker firm of J. E. Rhoads & Sons, Philadelphia, manufacturers of leather goods. This company has asked to be "excused" from quoting a price on an order of leather belt cement.

★ ★ ★

Someone at the Sheboygan Sausage Co., Sheboygan, Wis., really had a good idea when he decreed that sausage containing garlic should bear a red tag—presumably warning the unwary—while other product carries a yellow marker.

[One of a series of advertisements telling how American Industry is speeding up production]



Taylor Instruments are helping to keep it filled!

IT'S AMERICA'S JOB to furnish the food that will help win the war. We've got to feed millions of fighting men (our own forces, even now, are eating 9 million pounds of food a day!). We've got to feed the American people. It's our giant's job to supply much of the food that our war allies will need—now, and afterwards. The U. S. food basket must be bottomless and brimming over.

A great part of these billions of pounds of food will have to be good foods in cans. It can be supplied—because this nation's food industry can turn out fine canned foods fast. The majority of instrument-controlled food plants in the United States are Taylor-equipped. Taylor Instruments automatically control temperatures and pressures, and hold them to a precise processing schedule. Temperatures can't jump too high, overcooking and destroying food values—or slump too low, improperly sterilizing the food. Fluctuating pressures during the cooking don't get the chance to damage cans and contents.

Food plants working on Government contracts have stepped up their production greatly during the last few months by

adding hundreds of Taylor-controlled retorts and cookers to their production lines. These headlines will give you a glimpse:

Midwestern Packing Plant Installs

Taylor Control Systems to

Convert Thousands of Hogs Each Week into Hundreds of Thousands of Pounds of Canned Luncheon Loaves, Sausages, and Other Pork Products

In Another City Same Packer Installs Taylor Control Systems in New Plant That Will Pack 1,000,000 Pounds of Meat Weekly

Plant Puts Large Number of Taylor-controlled Retorts into Production to Process $\frac{1}{2}$ Million Pounds of Pork Per Week

And Government quotas for canned vegetables in 1942 are being stepped up nearly 100%. Throughout the whole food industry, Taylor Instruments will be doing the biggest job ever, in 1942.

You probably have the same problem

the food people have—meeting rigid Government standards of quality, quantity, price. You can meet them, by using Taylor Instruments in processing *your* product. Taylor Instruments will help *you* produce top quality at top speed. Taylor Instruments will help *you* cut costs and prevent waste—to assure profits in these times of pegged prices. Taylor Instruments will help solve a shortage of man-power—they work automatically, precisely, tirelessly.

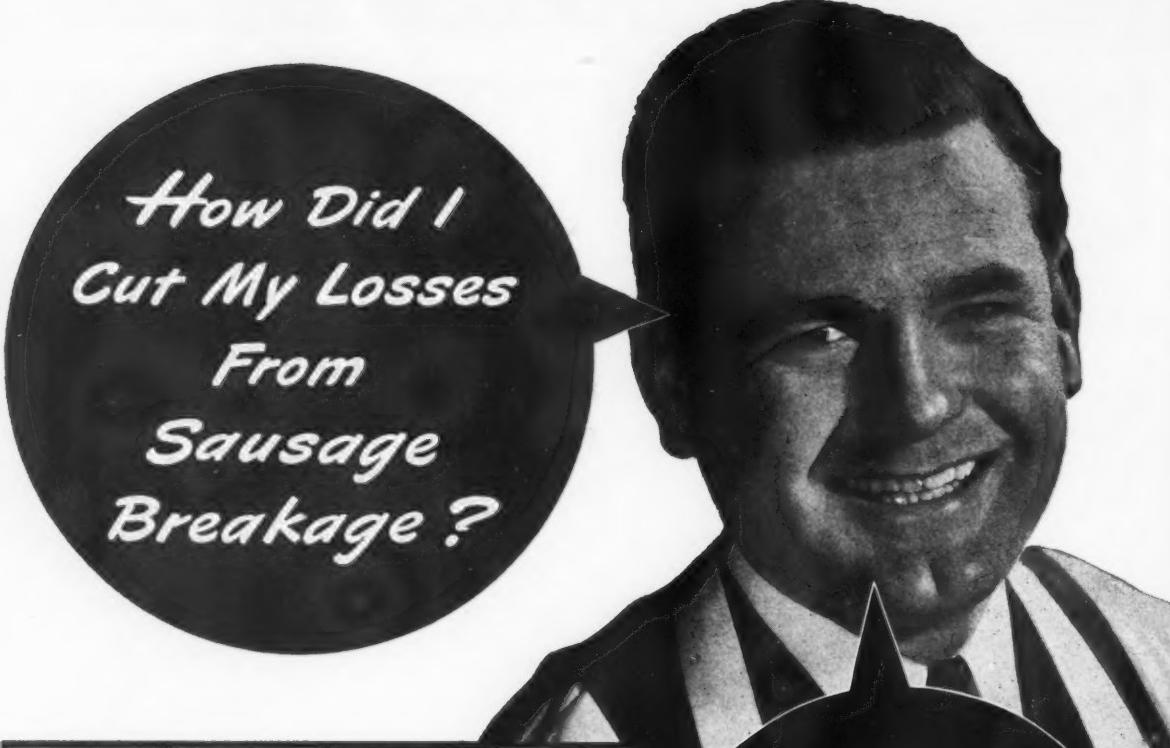
Every American Industry today needs the assistance of Taylor Instruments in speeding up *all* production. Taylor Instruments should be helping you do *your* part toward winning the war. What are your specific needs? Let us help *you*. Taylor Instrument Companies, Rochester, N.Y., and Toronto, Canada. Makers of the famous "Not 1 but 5 Fulscope Controller."

Taylor

Indicating Recording Controlling

TEMPERATURE, PRESSURE, FLOW
and LEVEL INSTRUMENTS

★ KEEP ON BUYING U. S. DEFENSE BONDS AND STAMPS ★

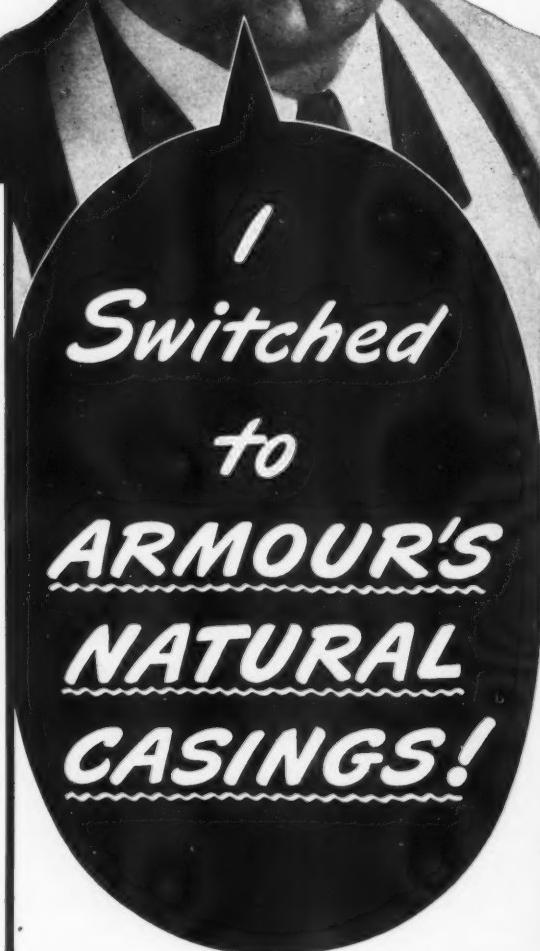


*How Did I
Cut My Losses
From
Sausage
Breakage?*

**Use Armour's Natural Casings
—Uniform and Strong,
to Resist Sausage Breakage**

Breakage in sausage filling can be expensive and wasteful. But there's a good way to reduce those losses to a minimum—use Armour's Natural Casings! These casings are uniform, elastic . . . and they resist breakage.

Armour's Natural Casings are better in other ways, too. They make your sausages "best sellers", because they add to the flavor by sealing in the natural meat juices—and they give your sausages a plump, fresh appearance because they have high elasticity that keeps the casings clinging tightly to the meat. Scores of sizes and types to choose from—your nearest Armour branch can quickly supply you with casings that are exactly right for any sausage product you make. Next time, order Armour's Natural Casings.



*I
Switched
to
ARMOUR'S
NATURAL
CASINGS!*

ARMOUR'S NATURAL CASINGS

Guard Your Supply Lines

THE priorities system is intended to help and protect business—not to harm it.

Starting out with the basic and indisputable facts that certain materials are very scarce, and that the manufacture of armaments must have prior rights to materials and production facilities, the War Production Board aims through the priorities system to allocate available scarce metals, fibres, rubber, etc. in the most equitable manner consistent with the nation's military and essential civilian needs. It is a democratic system and a fair one; chaos would prevail in its absence.

It follows, therefore, that it is in the selfish interest (as well as the patriotic duty) of industry to participate in and strengthen the orderly processes set up in the priorities system. To act otherwise is to abet industrial anarchy.

Let's get down to cases!

In past months, packers and meat industry suppliers have often ignored their joint responsibility by carrying on many of their mutual transactions outside the priorities system. Packers have taken advantage of the fact that suppliers have possessed inventories of equipment (containing priorities-controlled materials) and obtained it without getting a preference rating. In some cases they may even have obtained equipment which WPB or OPM would have refused them because, while possession of it was probably desirable from their own standpoint, it would have served the nation's and the industry's interests better in some other location. Industry suppliers have been equally remiss in allowing their inventories to be siphoned off without preference ratings; the argument that they "had to because of competition" is pretty weak.

This by-passing of the priorities system has

steadily whittled down the suppliers' ability to take care of the meat industry's present and future needs. With little rated business on their books, and few ratings to pass on to those who supply their steel and other raw materials, they cannot replace what they have sold, or, if they can do so, it is only with great difficulty and very slowly. WPB is not being generous in allocating materials to manufacturers whose records show few ratings better than A-10.

The packer cannot afford to take the attitude of "that's their hard luck, and I'm going to get all I can while I can." The time is close, if the suppliers' ability to produce is curtailed further, when it will be very difficult indeed to obtain some badly-needed replacement or additional equipment. An army protects and defends its supply lines; the meat packing industry should do the same.

It's nice to take refuge in the comfortable belief that "Washington will take care of us because we're an essential industry."

Maybe so, but Washington has a lot of other things to care for in addition to the meat packing industry. Moreover, WPB and the War Munitions Board are going to weigh the evidence coldly and objectively in determining the industry's needs and allocating scarce materials for our use. It certainly isn't going to help us to come into court with a record of non-cooperation and disregard of the orderly machinery set up to help the industry and the nation in the war emergency.

What policy do we suggest? Just this:

No packer should attempt to buy, nor should a supplier sell, equipment containing priority-controlled materials without obtaining a preference rating in the proper manner.

Improved Army Purchasing

THE Army's decision to purchase much of its meat through Quartermaster buying centers, on a definite quantity basis, is welcomed by the meat industry for several reasons and should encourage more packers to try for Army business.

Selling to centralized buying agencies should be more simple and less costly than selling to scattered posts and camps, even though deliveries will still be made to the latter.

Payment to packers should be speeded up considerably through daily or weekly purchases.

The system will be more flexible and it will be easier to adjust Army buying of certain types and grades of meat to seasonal conditions.

The definite quantity plan will allow the packer to determine accurately how much product he must supply to a specific camp within a given period. It should prevent such occurrences as the one in which a packer contracted to supply 2,000 lbs. of bologna during a one-month period, and finally was called on instead to deliver 50 lbs. of product, divided into three small shipments.

PROFITS IN THE BALANCE

SCALES count out the packer's profits—and his losses. They measure the livestock coming into the plant and the meat and by-products going out. Scales are the practical operating man's accountants and enable him to say: "So much meat for so much money—no more and no less," or "The shrink on these carcasses is too great," or "Sausage yield is good," or "This meat cost 16c per lb."

No piece of equipment is of greater importance to the packer. If a scale shows a constant error in one direction it may cost a packer thousands of dollars within a short time; if the error is in the packer's favor he may lose the good will of dozens of producers or meat dealers, to say nothing of getting into legal difficulties.

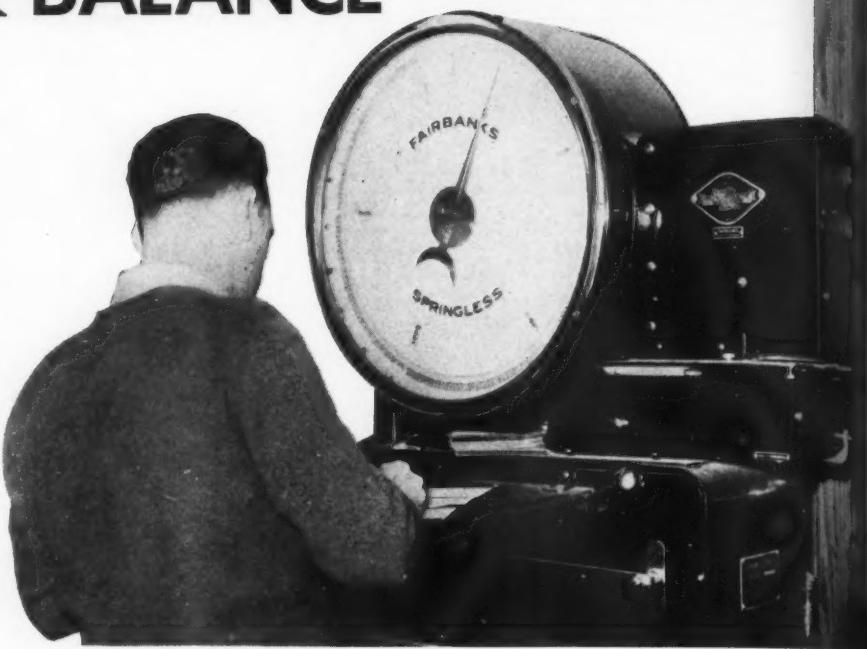
An elaborate cutting test is worthless unless it is made on the basis of accurate weights; the extra $\frac{1}{2}$ c per lb. cajoled from a buyer is lost if the product is weighed out over a scale which makes him a present of $\frac{1}{2}$ or $\frac{3}{4}$ oz. per lb.

There are two good reasons why packers should give scale maintenance close attention at this time. These reasons are:

Scale Care is Timely

1.—It may not be easy to replace scales in the future. Scale manufacturers are taking care of industry needs now, but it may become increasingly difficult to do so, since their products and the materials in them are vital to the war effort.

2.—Prices of most packinghouse products are at a relatively high level. An



error of 1 lb. in weighing 100 lbs. of meat, which once meant a loss of only 16 or 17c, may now cost 27 or 28c.

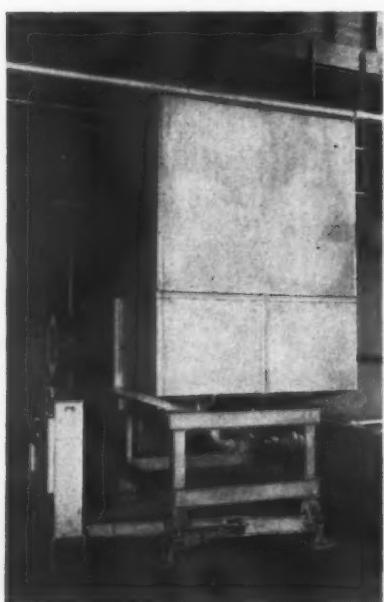
Scale life can be prolonged by proper maintenance and by the use of correct scaling procedure by packinghouse workers. Not only do scales last longer under a systematic program of checking, cleaning and maintenance, but they also weigh more accurately during their life.

Perhaps the most important step in setting up a maintenance program is to make one individual or one department directly responsible for it. The larger meat packing companies have scale departments which check, maintain and repair scales and recommend purchases. While the smaller plant does not need an elaborate setup, at least one man should be trained as a scale specialist and allowed all the time necessary to do his job in a thorough manner. This specialist (or scale department head) should study the needs of each packinghouse department and his recommendations, with those of the particular operating supervisor involved, should be given great weight in making scale purchases.

Although perhaps unnecessary from a strict maintenance standpoint, scales should be checked at least once daily to

SCALES FOR EVERY PURPOSE

Scales are used in a great variety of packinghouse operations and often under conditions which make regular maintenance and testing essential. Toledo Scale Co. tank scale at left weighs all the bulk lard leaving or entering the plant of Kingan & Co. Fairbanks-Morse scale shown above weighs livestock bought by a midwestern packer.



insure their accuracy. Instruments carrying particularly heavy traffic, such as sliced bacon, ham grading, canning room and rail scales, should be checked at least twice daily.

Test weights—castings weighing exactly 25 lbs., 50 lbs., 100 lbs. or smaller units in the case of lighter scales, as well as rail scales, should be tested to normal load. Dial scales should be tested within the range in which they are normally used, and periodically to capacity load.

Testing Procedure

In testing a platform scale, the test weights in 50-lb. units are placed in the center of the platform; the poise is moved out on the beam to the reading of the total weight on the platform. Readings should be taken in at least four steps between zero and full capacity. If the beam balances in the loop, the scale is accurate at the weight used. Similar tests should be made at each of the four corners of the platform with weights to 25 per cent of the total capacity of the scale. Predetermined weight scales are a modified platform type and are tested in the same manner as the platform type.

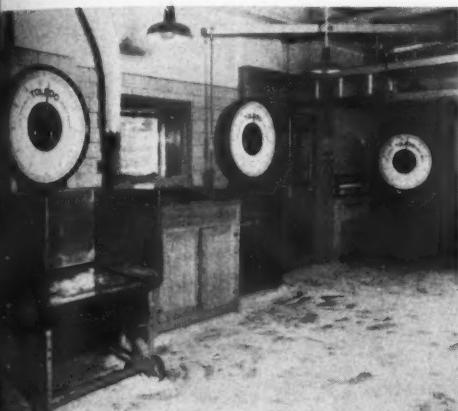
In testing the dial type of scale, the pointer should show the exact value of the test weights used; if the scale registers under or over the test weight, it should be rebalanced or adjusted by a competent scale mechanic. The scale operator, as well as the tester, should check frequently on the zero reading to make sure that the empty scale is in balance. The tare beam readings should also be checked with weights and with the dial chart indications to make certain that they agree.

Grading scales are tested by making sure that the colored graduations on the dial face actually cover the indicated weight ranges.

The livestock scale is a beam scale. Because of the manure which accumulates on it, and because of the rough treatment it receives, it should be balanced very frequently with the aid of the balance ball at the end of the beam. The scale pit should be cleaned every time the scale is tested or oftener if necessary. Accumulation on platform should not be swept into pit.

Although there are several ways in which a scale can go wrong, the first point to show wear is the pivot, a knife edge of hardened metal which rests in an inverted V bearing. The more a scale is used, the greater the wear on the knife edge. This wear is speeded up if the scale is not maintained properly or if it is misused. Worn pivots must be rehoned or replaced; in either case, the work should be done only by competent scale mechanics.

Scales used in a room where the relative humidity is high or excessive moisture present, should be greased at



pivots. Special oils or greases are necessary when the environment is corrosive; i. e., where there is considerable salt in the air. No grease is used on scales operated in sub-zero temperatures; specially plated pivots are necessary in such locations.

Overloading shortens scale life and leads to inaccuracy. A scale should not be loaded beyond its rated capacity; this point should be especially noted by the packer whose workmen frequently exchange scales between various departments.

Abrasives material (even dust is abrasive) should not be allowed to accumulate on pivots or bearings as it grinds them down and interferes with free operation. Gummy substances, which may result from deposition of grease, blood, etc., also cause trouble in this location.

Don't Drop Loads

Workmen should never drop material on a scale as the impact brings a heavy and sharp overload. The locking mechanism should be used (if the scale has one) when the scale is being loaded or trucks rolled over it. The poise on a beam scale, and especially the larger type, should be kept at the off-balance end of the beam when the scale is not in constant use.

Most beam scales are equipped with a locking device for the beam. This

CARRY HEAVY TRAFFIC

A large volume of product passes over many packinghouse scales and their life is often shortened by rough treatment. At top left are three types of scales found in sales coolers, while a carcass rail scale is shown below. Exact Weight scales are used on the continuous straight line bacon slicing and wrapping setup shown in illustration at right.

should be used to lock the beam when the scale is not in service, especially if the scale happens to be of the portable type.

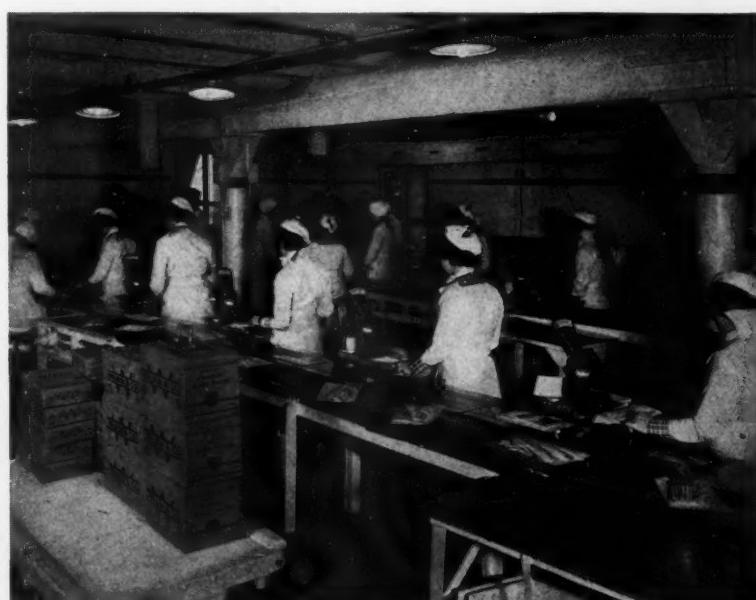
Scale mechanism—beam, lever, pivot, V-block, platter, yoke and indicator—should be kept clean. More inaccessible parts of the scale should be dusted with a lightweight brush or blown out with air. Cleaning must be done carefully to avoid impairing the accuracy of the instrument. Major repairs or adjustments should be made by a scale expert or by the company manufacturing the instrument.

Some scales are equipped with dashpots to reduce oscillations. These should be checked periodically to see that the fluid used for this purpose has not thickened, or evaporated.

Even though indicating and other apparatus on a scale is enclosed in a case which is supposedly dust and moisture-proof, it should be cleaned periodically and checked for the development of corrosion. Dial type scales should be equipped with a heating unit or lamp when used in a location with high relative humidity.

Assuming that the packer's scales have been correctly selected for the particular weighing jobs they perform and installed on good foundations, they will give longest and most accurate service if kept level, clean and dry and otherwise carefully maintained and tested in the manner outlined above.

Some packers have found it desirable to utilize the periodic checkup and maintenance service offered by scale manufacturers' agencies or by independent scale repairmen. Even when such service is used, however, it will pay the packer to test and keep watch on the condition of his scales. City and state bureaus of weights and measures can often give the packer help with his scale problems and their recommendations should be heeded.



Institute Ad Will Feature Foods for Victory Program

HIghlighting the current period of the nation-wide meat educational program, a colorful chart featuring all of the principal foods is being issued by the American Meat Institute as a guide to good nutrition for America's millions of consumers.

Approximately 20 million people will see this chart when it makes its first appearance in the March 2 issue of *Life* magazine, on newsstands February 27. The chart, captioned "Eat the Right Foods," is based on the United States government's guide to good nutrition.

Although the chart is sponsored by the American meat packing industry, meat is only one of the principal foods which it suggests as important items in the well-balanced diet. Among the foods illustrated on the chart are milk, fish, lettuce, apples, bread, macaroni, sugar, lard and butter.

The chart was prepared in cooperation with the government's "Food for Victory" program. In addition to having the approval of the council on foods and nutrition of the American Medical Association, as indicated by the seal which appears on the chart, it also is being issued with the hearty approval of prominent government officials.

The foods are all common and easily available to every housewife throughout the nation. They are foods grown on America's farms and the chart, in

addition to being an authentic guide to good nutrition for consumers, also promotes the use and sale of the products of the American farmer.

During the next several weeks practically every man, woman, and child in the United States will see this chart in one form or another. Over 275,000 large colorful, wall posters will be issued to as many retail dealers. More than 375,000 reprints of the advertisement are being distributed to retailers and others, to be used for display purposes in windows, on counters, or in show cases. Over 1,000,000 black and white reproductions in letterhead size will be placed in the hands of home economists, students, industrial physicians, state, county, and local nutrition committees, Red Cross chapters, parent-teacher associations and other groups which have direct contact with the home. This particular application of the chart contains information on the basic nutritional elements and what each of the principal foods offers in the way of these elements.

Under a slightly different arrangement, the same message will be directed to the attention of America on billboard posters in over 100 cities located in all sections of the United States. This poster, now in the process of preparation, will be a dramatic presentation of food and its place in the national victory pro-

gram. The poster will be captioned "Fighting Foods."

In newspapers the facts about food in good nutrition as presented by the American meat packing industry will appear in black and white advertisements. One treatment of the nutrition guide, especially that in newspapers, will feature the fact that "America Needs You Strong."

The appearance of the nutrition guide exemplifies the elasticity of the industry's meat educational program, the Institute points out. The color chart for use in magazines as well as the great number of supplementary pieces, was prepared in a matter of days soon after the United States became engaged in the war. Many advertisements often require weeks of preparation, sometimes months, before they are ready for public display.

Foster Says Meat Nutrition Education Helping Industry

"If we can come out of this war with no other job done than to have educated the American people on the nutritional value of meat generally, and the nutritional economy of the thrifty cuts of meat, we shall have done a job which will be beneficial to the livestock and meat industry in the years to come," T. Henry Foster, president of John Morrell & Co., stated recently.

In discussing the place of the meat industry in the current war economy, Mr. Foster compared the present approach to the problem with that of the first World War. People were urged to cut down on meat during the first war while they now are urged to eat more of the right foods, including meat, to provide good nutrition. The meat packing industry, through the American Meat Institute's educational program, is advising consumers of the important place of meat in the well-balanced diet, and building a foundation for the merchandising and promotional efforts of the industry during the war period, he said.

Because the industry was far-sighted enough to approach the nutrition problem from a constructive viewpoint well in advance of America's participation in the war, it now is in a favorable position to co-operate with the government's nutrition program, said Mr. Foster.

LABELING RULES RELAXED

The U. S. Bureau of Animal Industry has relaxed its labeling regulations in the interest of conservation of packaging materials to permit the inspector in charge, at his discretion, to allow continued use of approved labels and markings embodying the word "sugar" in connection with meat products in which cane, beet or maple sugar has been wholly replaced by syrup, honey or another kind of sugar.

Eat the Right Foods



AMI ISSUES A GUIDE TO GOOD FOODS

This chart, in various forms, will appear in *Life* magazine, as a retail store poster, as a broadside, on billboards and in many newspapers. Although issued by the American Meat Institute, meat is only one of the principal foods which it suggests as important items in the well-balanced diet. The chart fits in with the government's "Food for Victory" program and has the approval of federal officials, as well as the council on foods and nutrition of the American Medical Association.

For more information on the government's nutrition guide, write to the Bureau of Animal Industry, Washington, D. C. This Bureau is in charge of the nutrition guide. For more information on the nutrition guide, write to the Bureau of Animal Industry, Washington, D. C.

AMERICAN MEAT INSTITUTE . . . Chicago

CONTROL OF AIR DIFFUSION IN THE MEAT PACKING PLANT

WHEN air is discharged from a fan into a room, air motion unavoidably ensues. The extent, manner and effects of this motion are largely dependent upon method of discharge.

Our chief objective, either in air conditioning for human comfort or for refrigeration, is the elimination of drafts and stratification of the air within the room. This is as feasible in refrigerated rooms as it is in rooms for human occupancy. However, it is not so easy to create satisfactory air motion and distribution within a meat storage room as it is in a room that is being conditioned for human comfort. The requirements are much the same in both operations but the physical conditions of structure and occupancy are vastly different. In the room that is being conditioned for human comfort there is always considerable space between the breathing level and the ceiling of the room. In this space the diffusion and distribution of air may be effected in such a way that faulty air motion at the point of discharge may be overcome somewhat or minimized to the point of acceptance before the incoming air reaches the space of occupancy. The space between the top of the product and the ceiling of the meat room, is invariably much more restricted and is usually filled with various obstructions that will have a disturbing effect on the motion and distribution of the incoming air.

Turbulence Necessary

When air is discharged from an opening, it tends to travel in a stream until the energy of velocity has been dissipated or overcome by some opposing force. This stream of air does not mix readily with the air in the room. When a mass of air is projected into an enclosure, it has a tendency to move en masse until its energy of motion has been expended, and then that mass of air mixes slowly with the surrounding room air. In order to mix the incoming mass of air readily with the room air, it is necessary to create a turbulence that will break up the incoming mass into a multiplicity of smaller masses or streams and to bring other small masses—or streams—of the room air in between the masses of the incoming air. This can be accomplished through the method employed in the discharge of the incoming air.

The principle employed by the most efficient air supply device is the expansion principle, that is the incoming air is discharged through diverging openings in a multiplicity of streams, traveling in a variety of directions, and is discharged in such a manner as to create an equal number of counter cur-

This is the second half of an address on the control of air movement in the meat packing plant by V. Floyd Self, Anemostat Corporation of America, before the Chicago section of the American Society of Refrigerating Engineers. The first portion of the speech appeared in the January 24, 1942, issue.

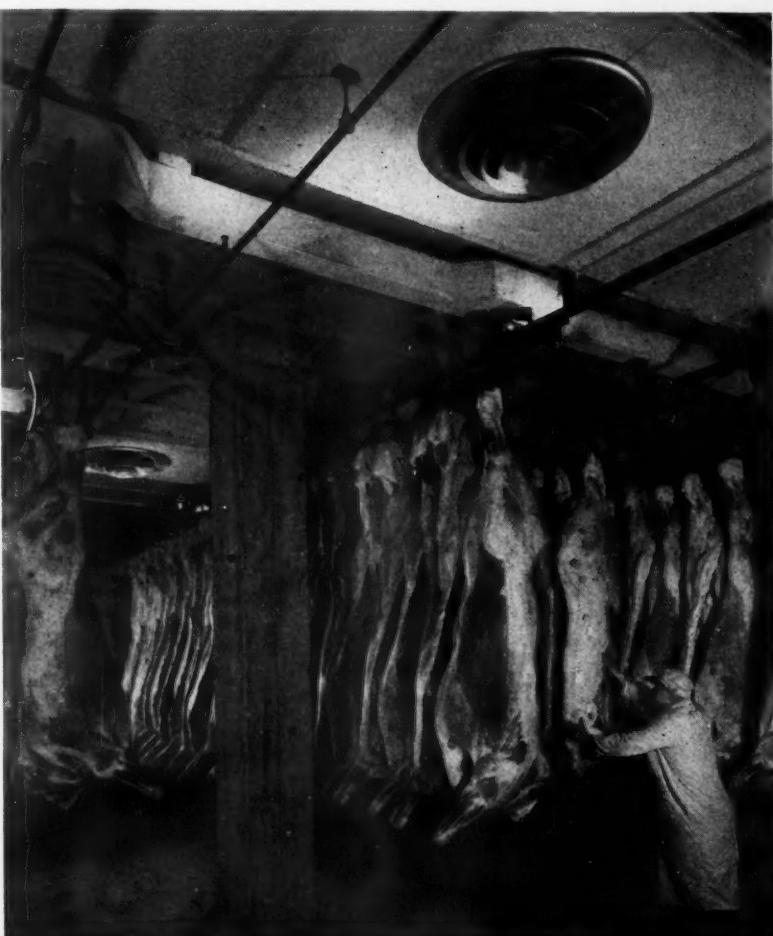
rents traveling in the opposite direction. These counter currents draw room air into the device where the mixing with the incoming air is started and, due to the action of these contrary currents, this diffusion continues and the energy of velocity of the incoming air is overcome and converted into pressure en-

ergy. Drafts are caused by velocity energy and when this energy has been overcome, all drafts are completely eliminated.

The space required for this conversion is determined by the number of streams, their direction of flow and their velocity of discharge. In refrigerated rooms the space available for this diffusion is usually very limited and the device must be designed to perform its functions within that limited space. It is evident, therefore, that just any diffusing device will not perform satisfactorily under these conditions, but the device must be specifically designed to perform its functions within space available.

In a cold storage room the incoming air must be colder than the room air and, since cold air has a tendency to fall, it is only practical to discharge this incoming air at the top of the room, which enables the force of gravitation to augment the static pressure which has replaced the energy of velocity, and to cause the conditioned air to flow

(Continued on page 33.)



CIRCULATION WITHOUT DRAFTS IN CONGESTED LOCATIONS

Air diffusion devices are particularly valuable in carcasses coolers, smoked meat hanging rooms and other congested areas where proper air circulation is otherwise difficult to obtain. When these are used, air outlets can be placed close to product without subjecting meats to strong air currents and shrinking and discoloring products.

UNEVEN DISTRIBUTION OF HEAT IN COOKING CANNED LUNCHEON MEAT

SPICED pork luncheon meat, as a commercially sterile product, has recently become the leading item in many meat canning plants. First, consumer acceptance of the 12-oz. package, followed by the extensive letting of contracts by the FSCC, provided the impetus which has brought sterile luncheon meat so rapidly into its present important position in the meat canning industry.

Because of such rapid expansion in production, a number of processing practices have been adopted which originated from the necessity of obtaining maximum production, or from theoretical considerations and limited observation. A number of these retort operating methods have been inaugurated for the purpose of controlling shrinkage in the can, which is so important to the quality of the finished product.

To produce a commercially sterile product, the process or heat treatment must be sufficient to destroy those micro-organisms which are capable of growth at shelf temperatures. Most non-acid canned foods are processed to result in sterilizing values (F_0) of 2.78 (measured in terms of equivalent minutes at 250 degs. F.) or more. Packers of luncheon meat, for reasons of quality, have seen fit to use lower sterilizing values, relying on the bacteriostatic effect of curing agents and a rigid program of plant sanitation to prevent losses through spoilage of their canned products.

One of the processes recommended by the American Meat Institute for FSCC pork luncheon meat in 6-lb. rectangular cans is 200 minutes at 230 degs. F. With a 15-minute coming-up period, this process has a sterilizing value (F_0) of 0.6. In order to obtain the full sterilizing value of this process, proper distribution of the heating medium must be effected, and it is the purpose of this paper to point out a number of factors influencing this.

HEAT DISTRIBUTION.—Tests have shown that, with a suitable retort hook-up and proper operation, satisfactory heat distribution is obtained in a retort loaded with round cans. The effective heating of each can is uniform throughout the load because of the relatively small area of can-to-can contact surface. This is especially true of scrambled cans. On the other hand, effective heating in a retort load of 6-lb. rectangular cans may be considerably less than satisfactory.

For reasons of steam economy and of maximum production, 6-lb. rectangular cans are frequently packed tightly into retort crates. The sides of the rectangular cans, which are inherently far less rigid than those of round cans, bulge out during processing. The interstices between the concave or "spanked-in" sides of the cold cans disappear to a

considerable extent and the heating medium—steam or water—has access only to the free spaces at the corners of the cans.

A series of tests was made to determine temperatures between tightly stacked as compared to loosely stacked rectangular cans during processing. These tests were made in water, water with superimposed air pressure, steam, and a steam and air mixture. Special copper-constantan thermocouples which ringed the cans and had electrically insulated hot junctions were used in making the temperature measurements. This type of couple permitted the cans to be stacked as tightly as the end double seams allowed, yet the readings were not subject to interference by bare hot junctions touching can walls.

In each of the four conditions of processing, there was a very definite lag in the temperatures between tightly stacked cans, as illustrated in Fig. 1. In the steam cooks, there was a distinct temperature drop between tightly stacked cans (see Fig. 1, page 34). process. This increase may be logically related to the bulging of the can walls and subsequent impeding of the free circulation of the steam heating medium. The same condition obtains, to a somewhat lesser degree, however, in water processing.

Some packers of pork luncheon meat have contended that the rectangular cans must be processed in water with superimposed air pressure, or in steam with added air pressure in order to obtain the desired yield in the processed product. The theory, which has undoubtedly been based on some evidence, is that the excess pressure afforded by

• A report presented before the Meat Section of the National Canners' Association, in convention at Chicago last month, by O. F. Ecklund, H. L. Roberts and H. A. Benjamin, of the American Can Co. research department.

the air keeps the can walls from bulging, a condition believed conducive to maximum yield. Since these tests did not cover a large range of processing pressures, it is not known just what pressure is needed to keep the can walls "spanked-in."

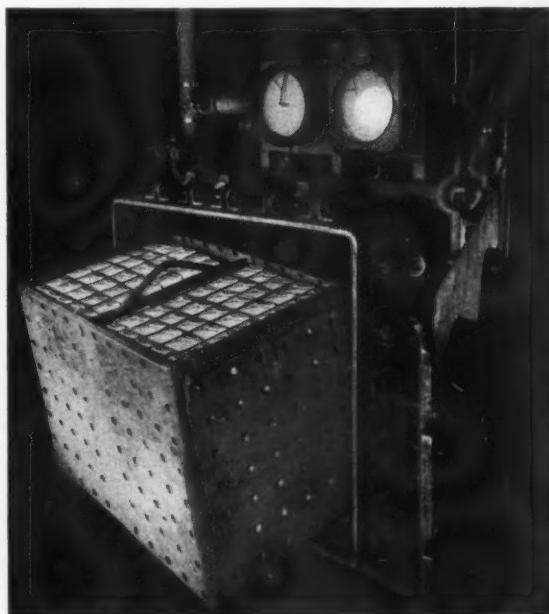
It is known, however, that from 4 to 6 lbs. of added air pressure at a temperature of 230 degs. F. will not entirely prevent the can walls from bulging, since in using these pressures the insulated thermocouple wires were pressed flat by the pressure of bulging cans. This is the amount of added or superimposed air pressure commonly employed in the industry. Yield data, which will be discussed later, further indicate that the use of added air pressure in the range now employed has little significant value.

Processing in a steam and air mixture is a practice that should be discouraged unless it can be shown that the retort hook-up is such as to maintain even heat distribution throughout the retort with no possibility of the formation of air pockets. This is a very difficult condition to meet. Uneven heat distribution was revealed in a two-crated vertical retort in which 6-lb. pork luncheon meat was processed in a steam and air mixture. The loosely packed cans were distributed systematically throughout the load. At a point near the end of the process the air was shut off and the retort was vented through the blowoff valve for about 2 minutes.

(Continued on page 34.)

POPULAR CANNED PRODUCT GOES INTO RETORT

Treat, spiced pork delicacy developed by Armour and Company, is shown here before it enters one of the large steam ovens in which the product is carefully cooked under regulated temperature and pressure. The process is so closely controlled that the finished product weighs out at exactly 12 oz., it is stated, and flavorful juices remain suspended in the meat. As pointed out in the accompanying article, retorting product in small cans or in round cans does not present the same processing difficulties as cooking product packed in 6-lb. rectangular cans.





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Every dollar that you give now to your Red Cross marches into the thick of things where humanitarian help is needed most—up to the fronts and battle stations where the fighting is heaviest. Into the Red Cross hospitals and First Aid units where prompt medical attention and supplies may save innumerable lives. And throughout our broad land to train and equip volunteers to meet any emergency that may strike.

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Provides for the care, welfare and morale of the Army and Navy, including services to men in hospitals and during convalescence. • Provides an important link between the service men and their families; keeps the families from breaking up, supplies food, shelter, medicine, and even jobs where necessary. • Provides essential medical and other supplies outside of standard Government equipment. • Operates Red Cross headquarters at camps and naval stations. • Enrolls blood donors and medical technologists for Army and Navy needs. • Provides millions of surgical dressings, sweaters, socks, etc. through volunteer workers.

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Supplies emergency needs for food, clothing, shelter and medical attention for disaster victims. • Assists stricken families in repair of homes and other adjustments; provides minimum reserves of essential relief supplies to prevent unnecessary delays.

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Trains volunteers for home nursing and nurses' aides. • Trains nurses, men and women, for active duty with the Army and Navy. • Trains volunteers in First Aid and accident prevention. • Trains volunteers for work in Motor Corps, Canteen and Production. • Instructs men, women and children in preparedness against explosive and incendiary bombs. • Organizes for evacuation of children and their families from stricken areas. • Assists Red Cross Chapters in establishing effective coordination of emergency relief with local and State defense authorities.

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Gives assistance and service to the 3,740 Red Cross Chapters with their 6,131 Branches responsible for local Red Cross activities, particularly welfare work among the service men and their families.

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Provides for unforeseen expansions in program and for new activities made necessary by unexpected developments.

TOTAL • • • • • • • • • • • • • • • • • \$50,000,000

THE AMERICAN RED CROSS \$50,000,000 WAR FUND

Note to Red Cross Canvassers: Use this information to better inform contributors how their donations are being expended.

This space has been donated by the publisher.



WATER FOR A NATION AT WAR!

To the East and to the West we are looking straight into the cannons of war. From within we face the inevitable saboteur. It is time to become grim, cautious and determined in our war aims and actions. We must win this war and do a good job of it. We will fight with men, metals, fuel, power, food, water and materials of all kinds.

Never before has water been a more vital necessity. Beyond its task of serving men, materials and machines, water now also must guard against fire . . . protect factories, equipment, supplies, homes . . . and lives.

As in the strenuous days of defense preparation, Layne now is ready, fully equipped and speedily engaged in an even greater task . . . that of providing water for a Nation at war. This activity includes service to the Military and Naval forces, essential industries and necessary repair work.

Check your water supply and install necessary wells and pumps. See that all present wells and mechanical equipment are placed in good order and kept ready for any emergency. Repairs to existing equipment will conserve material needed for war purposes.

LAYNE & BOWLER, INC.
Memphis, Tenn.

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Keeping Fatty Acids Down Assists in the War Effort

GLYCERINE is a basic defense material highly important in the manufacture of munitions and other vital war items. Approximately 95 per cent of the total production of glycerine is obtained from rendered fat as a by-product in the manufacture of soap. With imports of fats and oils drastically curtailed, domestic fats must play an increasingly important part in making maximum munitions manufacture feasible. The yield of glycerine varies inversely with the free fatty acid content of rendered fat; the lower the free fatty acid, the higher the yield of glycerine.

Recognizing the important contribution which the meat packing industry can make to the war effort by producing rendered fats which are as low as possible in free fatty acids, the American Meat Institute this week urged packers to take certain steps to produce low-acid fats.

The Institute pointed out that such efforts will be not only patriotic because they will guarantee maximum production of glycerine, but also good business because they will guarantee a maximum financial return per pound of product. To obtain a rendered fat with low free fatty acid, the raw fat must be rendered promptly and the rendered fat thoroughly clarified immediately after rendering.

Pure fat is a union of glycerine and

fatty acids. Enzymes present in unrendered fat separate the glycerine from the fatty acid and the glycerine is lost in the rendering process. This splitting action is progressive. The longer the fat is held before being rendered, the greater will be the loss of glycerine.

The Institute urgently recommends, therefore, that packers (some of the suggestions also apply to renderers) survey their plant operations with special reference to the following points:

SAFEGUARDS.—Check whether all fats are being rendered properly.

a) Require all catch basins to be skimmed regularly. Catch basin skimmings are a frequent cause of trouble.

b) Locate catch basins as closely as possible to the original source of the fat.

c) Use small departmental catch basins. Such basins, skimmed regularly, give better results than one large plant catch basin because the skimmings reach the rendering department promptly and there is less possibility of contamination. Departmental catch basins also provide a closer check on the source and quantity of fat going into sewer.

CLARIFICATION.—Dry and clarify rendered fat from the tanks or melters immediately after rendering and before placing in storage. Heat the rendered fats carefully and settle them carefully

(Continued on page 17.)



HELP WIN THE WAR IN THE RENDERING DEPARTMENT

Use of small, clean catch basins, skimmed regularly, and prompt rendering and clarification of fats, plus adequate laboratory control of condition of raw materials and rendering operations, will be effective in minimizing the free fatty acid content of tallow and greases. Low-acid fats yield more glycerine for munitions.

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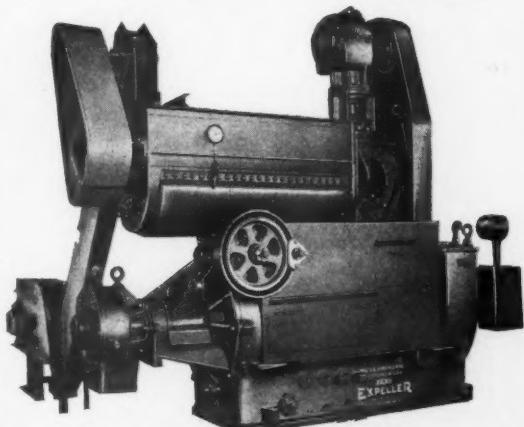
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EXPELLER ENGINEERS can help you with PLANT LAYOUTS *

Are you considering revamping your present plant layout or laying out a new plant? Then here's a valuable suggestion: call in an Expeller Engineer when you are working on your plans. These men have had wide experience in many plants. They know plant layout as well as efficient crackling production. They can give you valuable information not only on pressing equipment but all other plant equipment. Yes, they can even train your operators. The advice of an Expeller Engineer may save you thousands of dollars. If you are interested, write today and ask an Expeller Engineer to call. Remember, there's no obligation connected with his call.

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on WHEELS
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There is no need for you to tolerate waste in handling meat. Eliminate the losses from slime, loss of bloom and trimming by converting your trucks into cooler-rooms on wheels with KOLD-HOLD "hold-over" refrigeration.

KOLD-HOLD refrigerates trucks in the same way cooler-rooms are refrigerated . . . permitting dry, cool, clean and odorless truck bodies. It's easy to refrigerate overnight, break the connections in the morning — and KOLD-HOLD provides thorough refrigeration for a full day's run.

Here is the way to assure predetermined temperatures for transit, get longer runs, and increase sales by keeping the meat clean, cold and hard.

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429 NORTH GRAND AVENUE
LANSING, MICHIGAN
U. S. A.

U.S. Meat Animal Population

January 1 Largest in History

THE United States was fortified with more meat animals on farms on January 1 of this year than ever before in history, the U. S. Department of Agriculture reported this week. To attain the new all-time high total, the increase in meat animals in 1941 was one of the three largest gains ever made. The actual number of all livestock measured in terms of animal units, moreover, was largest since 1934.

Numbers of cattle, hogs and sheep increased, with cattle and sheep numbers both making new all-time records, and the hog population reached the fourth highest level in over 15 years. The number of horses and mules showed declines compared with a year earlier.

When the numbers of the various species are converted to an animal unit basis which allows for the differences in size and feed requirements, there was an increase from the preceding year of about 4 per cent; in terms of grain-consuming animal units the increase was 6 per cent; and in terms of hay and pasture units the increase was about 3 per cent.

Hog numbers showed the biggest gain

of any class of livestock. The number on farms January 1, 1942—60,526,000 head—was up 6,270,000, or 12 per cent from a year earlier. The increase in numbers was largely a result of the large fall pig crop of 1941, which was up 18 per cent from that of 1940. Government action of several kinds has encouraged an increase in production which otherwise might not have occurred.

Upward Cycle Continues

The continued upward swing in the cattle cycle during 1941 brought the total of all cattle on farms on January 1, 1942 to a new high record of 74,607,000 head. This increase in cattle numbers took place despite the fact that commercial slaughter of cattle and calves, combined, in 1941 was the third largest on record and the largest on record on a tonnage basis. Included in the all-cattle total were 26,303,000 head of cows and heifers for other than beef purposes, which left around 48,304,000 head as meat animals.

The number of sheep and lambs on feed for market on January 1, 1942

was larger than the previous record number of a year earlier and the total of all sheep was the highest for any year. Sheep and lambs on feed for market totaled 6,775,000 head, about 300,000 head above the previous all-time high record. The total of all sheep of 55,979,000 head at the start of this year included 49,204,000 head of stock sheep. Stock sheep numbers increased 1,400,000 head, or 3 per cent, over a year earlier.

Flocks of chickens and turkeys increased during 1941. The number of chickens on farms January 1 was up 12 per cent from a year earlier and was almost as large as in the peak year of 1928. Turkey population was up 6 per cent from a year ago and was 22 per cent above the 10-year average. A shortage of breeders in 1941 resulted in a late turkey hatch and farmers are holding more breeders now than they did a year earlier, which may result in an increase in the poult hatch this year.

Inventory Value Higher

The number of horses, including colts, on farms was 9,856,000 head, a decrease of about 4 per cent from a year earlier. A further decline in mule numbers brought the total on January 1 to 3,811,000 head, a decrease of 3 per cent from a year earlier.

The total inventory value of livestock

(Continued on page 36.)

New! R & M DRESSING FLOOR HOIST



WRITE FOR SPECIAL PACKERS' FOLDER!

Send now for free copy of Folder AB 900 for complete details on R & M paunch, knocking pen, dressing floor and standard duty hoists.

Step up meat-moving in your plant and keep handling costs down with this new R & M heavy-duty dressing floor hoist, designed especially for packers. It's available in 1200- or 2000-lb. capacities with choice of speeds, pendant-rope or push-button control. It's fast, handy, powerful . . . built for years of service with economy. "Take it up" with R & M today.

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PALCO
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FREE 16-page Cold Storage Manual
THE PACIFIC LUMBER COMPANY
San Francisco • Chicago
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For ECONOMICAL TEMPERATURE CONTROL

Free Fatty Acids

(Continued from page 14.)

in a tank or filter them. Clarification is of extreme importance because during the rendering a certain percentage of the fibre in the original fat disintegrates into fine particles and if these fines are left in contact with the rendered fat in the presence of moisture, the fat will be broken down and the yield of glycerine cut sharply.

CLEAN FATS.—Keep fats clean in order to produce a rendered product which is easily settled and clarified.

a) Wash all viscera fat very carefully before sending it to the rendering department. If viscera contents are allowed to go into the renderer with the viscera, dirty tallow or grease is produced which is difficult to clarify.

b) Empty catch basins and thoroughly clean them each day. By keeping catch basins thoroughly clean, opportunities for contamination of the fats are greatly lessened.

c) Make sure that drainage systems from departments, such as the sausage, which contain relatively clean fats, do not discharge into the same catch basin receiving fat from departments, such as the viscera washing, where fats obviously are dirtier.

CONTROL TESTS.—Packers should endeavor at all times to obtain the best quality of tallow and grease from their raw material. Fairly frequent analysis of product is essential in order to check quality. The service laboratory of the Institute has developed information through its many analyses which indicates what is considered a normal acid content of tallow and grease rendered from various grades of fat. If members will submit samples of their tallow and greases for analysis by the laboratory, together with a list of the raw materials used in their manufacture, the laboratory will be able to tell whether the fat is being handled to the best advantage. The fee for this analysis is modest.

MAXIMUM YIELDS.—The highest possible yields are important because obtaining the best yields possible is sound business practice and contributes to quality product.

Test products regularly for their grease content in order to check operating procedures. It may be found that excessive amounts of grease are being left in the pressed tankage or cracklings. The aggregate quantity of grease (and glycerine) lost in this way is large.

Dry rendering procedures (open, vacuum or pressure cooking), bone content, moisture in crackling residue and pressing temperatures are factors influencing the residual grease content in the finished product. Similar details are equally important in wet rendering.

Packers are urged to utilize the services of analytical laboratories in correcting operating procedures. The service laboratory of the Institute is unusually well fitted to help the industry because of its wide experience in the analysis of packinghouse products.

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GREAT LAKES

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Ingredient Branding Problems

The Great Lakes method is easy, speedy and effective. Can be set up, interlocked, and quickly arranged to conform with all changes in formula or product. Eliminates need for extra labels or tags—saves time and labor by eliminating extra operations. Imprints list of ingredients, trade mark, brand name and product name in one single, simple operation. *Superior in every respect . . . Send for complete details!*



One brander is all you need to meet all Federal and State Ingredient Labelling problems.

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STAMP & MFG. CO., INC.

2500 IRVING PARK BLVD., CHICAGO

JOURDAN Economy COOKER



The JOURDAN cooks complete batch of sausage at one time . . . requires less time to operate . . . produces uniformly fine product always . . . reduces shrinkage . . . eliminates tangled, burst and broken links . . . applies color at same time sausage is cooked . . . fits every space requirement.

Manufactured under the following
Patents No. 1,850,459 dated Nov.
6, 1932 and No. 1,921,231 dated
Aug. 6, 1933. Other Patents Pending.

For lowest possible operating costs, startling results and all-around economy you need the new JOURDAN Economy Cooker! The JOURDAN COOKER offers unusual and exclusive results because of its patented, circulating, percolating cooking action. No other method of sausage cooking can yield the profits guaranteed by this remarkable piece of equipment . . . your sausage cooking, dollars go farther when you use the automatic JOURDAN PROCESS COOKER. We invite you to try it in your own plant under normal conditions at our expense. Write.

JOURDAN PROCESS COOKER CO.
814-822 W. 20th STREET
CHICAGO, ILLINOIS

Up and down the MEAT TRAIL

V. H. Munnecke, Veteran Chicago Packer, Passes

Victor H. Munnecke, 66, president and director of the P. Brennan Co., Chicago pork packing firm, passed away at his



V. H. MUNNECKE

the U. S., he went to work for the Fowler Packing Co. of Kansas City, later joining the St. Louis Independent Packing Co. and going to Chicago to join the G. H. Hammond organization in 1906.

Following service with G. H. Hammond Co. and the Independent Packing Co. at Chicago, Mr. Munnecke joined Armour and Company in 1912. He remained with Armour until 1927, and was vice president in charge of dressed beef operations when he left to assume an executive position with the P. Brennan Co.

Mr. Munnecke is survived by the widow, Alice Louise Munnecke, and four sons, Robert C. Munnecke, vice president of P. Brennan Co.; Wilbur C. Munnecke, vice president of Marshall Field & Co.; Victor H. Munnecke, jr., a chemical engineer connected with the aviation industry, and Richard A. Munnecke, Chicago attorney.

Kroger Takes Over Plant of Lewis Company at Omaha

Kroger Grocery & Baking Co. has purchased the plant of the Lewis Packing Co., Omaha, Neb., and assumed full charge of operations, James Arrington, president of the Lewis concern, announced last week. Plans for the near future include installation of beef tendering equipment.

The plant, which was remodeled in 1935 at a cost of \$125,000, formerly specialized in production of choice beef cuts for eastern markets. More recently, most of its operations have been in cows. It represents the third packing plant under the control of the Kroger company, the others being located at Columbus and Cincinnati, O.

Robert C. McClements, who has served as superintendent of the Lewis plant, will continue in that capacity. He will be assisted by Frank Westervelt of the Kroger organization, who was transferred from Cincinnati. Mr. Westervelt, Joseph B. Hall, Kroger vice president and director in charge of manufacturing, and J. A. McKinney, head of plant operations, went to Omaha to complete the transaction for Kroger.

E. K. Hickman to Newly Created Morrell Position

Elbert K. Hickman, a former employee of John Morrell & Co., has been appointed to the newly created position of production superintendent of the company, effective February 24, according to an announcement this week by George M. Foster, vice president in charge of operations. Mr. Hickman has been connected with the Illinois Meat Co., Chicago, for the past two years.

"Complexities of modern-day operations have made necessary the creation of the new position," explained Mr. Foster. "Mr. Hickman will devote his entire energies to production problems, thus enabling Superintendent Harold C. Morris to give more time and thought to other operating problems. The appointment does nothing to diminish the responsibilities of the present divisional superintendents. . . . We must eliminate waste of time and materials if we are to meet the government's demand for increased meat production."

Mr. Hickman, 37, was employed by Morrell in 1923 as a stenographer for Ernest Manns, then superintendent. He later became test clerk and was an assistant to the general superintendent when he resigned to accept another position in 1938. He was affiliated with East Tennessee Packing Co., Knoxville, before joining Illinois Meat Co.

All Accounted For!

When a truck loaded with more than 200 pigs skidded and turned on its side recently in front of the plant of A. F. Schwahn & Sons, Eau Claire, Wis., boys of the vicinity had a merry chase rounding up the scurrying animals. Not a pig was lost or injured, the driver said.

Personalities and Events Of the Week

The quality of western grain-fed beef was discussed by Emmett V. Graham, publicity director of the Tovrea Packing Co., Phoenix, Ariz., at the weekly luncheon meeting of the Phoenix Hiram club recently.

Harvey G. Ellerd, vice president of Armour and Company and chairman of the industrial relations committee of the Illinois Manufacturers' Association, will preside at the afternoon session of a war emergency conference to be held at the Hotel Sherman, Chicago, on February 24.

Frye Investment Co., Portland, Ore., recently reported the sale of a one-story concrete building to Del Monte Meat Co., Inc. The structure is located on a tract measuring 100 ft. square.

Jacob S. Heisey, 74, who was associated with the Carstens Packing Co., Tacoma, Wash., from 1913 until his retirement in 1935, died on February 8 in a Tacoma hospital after suffering a stroke. Mr. Heisey was sent to Shreveport, La., in 1903 as branch manager for the old S. & S. firm and was transferred to Seattle in 1906, later becoming district manager in charge of Washington, Alaska, Oregon, Nevada, California, Montana and Idaho. Later, in the Carstens organization, he served as sales and branch manager.

John J. McVady, secretary of the Loyal Packing Co., Chicago, addressed the annual get-together banquet held during the Chicago food trades convention for suppliers of Clover Farm stores.

Delta Packing Co., Clarksdale, Miss., which began operations about three and one-half years ago, reports steady progress and growth. The company is adding another sausage table and stuffer, enlarging its sausage kitchen and installing a new cooler. The business is operated by Robert Vincent and John Wacht, both of whom formerly worked for Abraham Bros. Packing Co., Memphis.

L. A. Woolman, operator of a rendering plant at Royal Oak, Mich., has asked permission to build a 20- by 50-ft. concrete block storage building on the plant. He also seeks an extended lease with a ceiling on monthly rentals.

Acme Packing & Provision Co., Seattle, Wash., has joined the growing list of meat plants which have adopted the payroll allotment plan for purchase of U. S. defense bonds by employees.

Products of the Plankinton Packing Co., Milwaukee, are now being sold in colorful new wrappers and cartons. The

design, in red, white and blue, is used in the packaging of Globe ham, sliced bacon, lard and other products. The Plankinton firm is observing its ninety-fifth anniversary this year.

Winfred C. Lightbody, 53, retired office manager of Armour and Company, Worcester, Mass., died early this month at his home in Westboro, Mass.

Employees of the Pittsburgh, Pa., office of John Morrell & Co. are contributing \$25 to the city's "Buy a Bomber" fund, with F. A. Janda, Pittsburgh district manager, doubling the total contributions of the 14 office employees.

Industrial plants and large buildings in western Pennsylvania and New York, including meat packing plants, have been ordered by the U. S. Army to "paint out any flat or slanting roof signs which might identify either the establishment or the community to enemy flyers. Vertical signs may remain, but cannot be illuminated at night." The plants, said the order, should be prepared to black themselves out by pulling switches in the event of an air-raid alarm.

Grand champion steer of the Houston Fat Stock show, Houston, Tex., brought a record price of \$2.27 per lb., making the 850-lb. animal worth more than \$1,900 to Calvin Leifeste, Mason county 4-H club boy. Grand champion lamb at the show brought \$4 per lb., which was declared to be a national record.

Edwin C. Pearson, Madison, Wis., was placed on probation on February 14 for changing figures on invoices of meats he purchased from the Madison Packing Co. According to the district attorney, Mr. Pearson defrauded the packing firm of an estimated \$1,000 during the past eight months.

Formost Provision Co., a new organization, was established in Philadelphia at 519 S. 14th st. by Israel Forman, according to registration made on February 14 in the court of common pleas.

Philadelphia Dressed Beef Co. on February 13 filed a petition for an

Tornado Pays Visit

The building occupied by the Cudahy Packing Co. at Little Rock, Ark., received considerable damage on February 6 when a tornado struck Little Rock and Pulaski counties, leaving in its wake property damage estimated at several hundred thousand dollars. An adjoining brick wall toppled through the roof of a storage area in the Cudahy unit.

Flames of undetermined origin gutted the second floor of the Bullard Packing Co. plant at Hattiesburg, Miss., on February 10, causing damage estimated at \$10,000 to the building and its equipment. The plant had been processing 50 to 60 cattle and hogs per week. The firm's slaughterhouse, which is at a separate location, will continue operations while the plant is repaired.

A custom butchering plant at Grove-land, Ill., was practically destroyed by fire on February 10. The blaze is believed to have originated in a smokehouse. . . . Meat warehouse of the H. C. Derby Co., Philadelphia, narrowly escaped damage on February 8 when a raging fire destroyed a warehouse located in an adjoining structure.

amendment to its articles of incorporation. The proposed amendment would increase the authorized capital stock of the corporation to \$60,000, consisting of 100 shares of common stock with a par value of \$100 and 1,000 shares of preferred with a par value of \$50.

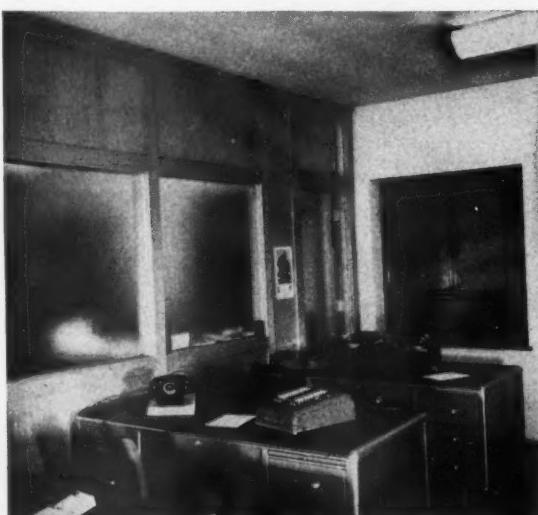
J. E. Northcott, industrial relations department, and W. Christy, provision department, Swift & Company, Chicago, spent a few days in New York during the past week.

George A. Morrell, treasurer and publicity director, John Morrell & Co., is visiting Eastern branches of the company and spent some time with E. L. Cleary, eastern district manager, at the New York branch last week.

Many firms in the East received tax

READY FOR BUSINESS!

In the new wing of the building occupied by North Side Packing Co., Pittsburgh, Pa., is located this remodeled accounting department, bright with entirely new surroundings and equipment from hardwood floors to all-steel desks. Fluorescent tube lighting provides a final touch of modernity. This attractive department is only one phase of an extensive program of remodeling recently completed by the Pittsburgh packing organization.



refunds from the Treasury Department during the past week. Among those receiving processing tax refunds were Figge & Hutwelker, Inc., New York City, \$35,221, and C. A. Durr Packing Co., Utica, N. Y., \$37,974.

A contribution of \$19,503 from employees of Wilson & Co. to Chicago's Red Cross war fund was announced on February 11 by James B. Forgan, general campaign chairman. This pledge brought the total Wilson subscription to \$31,000.

James R. Donaldson, who has been connected with the beef killing department of Armour and Company, S. St. Joseph, Mo., since 1929, will take up new duties at the Columbus, O., plant on February 16. He will be in charge of beef killing and small stock killing operations.

Due to transfer of T. B. Allen, assistant superintendent of the S. St. Joseph plant of Swift & Company, to the plant at Havana, Cuba, H. J. Riha has been named assistant superintendent and beef division superintendent at the St. Joseph plant. H. O. Gerding has been made division superintendent of the pork division.

S. Edgar Danahy, former secretary of the Danahy Packing Co., Buffalo, N. Y., who joined the company 34 years ago and worked up from the bottom, has been elected president of the organization. He succeeds his brother, the late Arthur T. Danahy, in the post.

Kuhner Packing Co., Muncie, Ind., can sell its meats in Frankfort, Ind., without submitting to Frankfort's meat inspection ordinance, according to a recent court ruling. The Kuhner firm, in a suit against the city, contended that its meats were inspected under state laws at Muncie, charging "unreasonable discrimination."

John Morrell & Co. will limit delivery service to one delivery each day in Sioux Falls, S. D., L. E. Winnett of the Sioux Falls sales division stated recently. The company is urging markets and groceries to cooperate with the new arrangement, adopted to conserve tires and trucks.

Kilian Joseph Klauer, who retired in 1932 as a dealer in wholesale provisions in New York City, died on February 6 after a long illness. He was 72 years old.

Frederick Diebold, 46, sausage manufacturer associated with the Reading, Pa., firm of Diebold Bros., died on February 5 at his suburban home.

Recent visitors to New York included E. W. Seyl, treasurer, Wilson & Co., Chicago; Frank K. Foss, vice president; J. T. Weinrich, sausage department, and N. J. Anderson, small stock department.

J. M. Eagle, dog food department, Wilson & Co., Chicago, was a visitor to New York last week.

A. L. Scott, beef department; W. A. Mayfield, transportation department, and J. B. Townley, branch house sales department, Swift & Company, Chicago, were visitors to New York during the past week.

ARMY'S HUGE FOOD DEMANDS SWELL REFRIGERATION NEEDS

TO SUPPLY the Army's food and prevent recurrence of a situation which prevailed in the first World War, when army depots competed with each other for food supplies, the Quartermaster Corps has set up a new system of food procurement. This system serves to create a minimum of interference with civilian supply. The changed method provides for centralized procurement of certain non-perishables through the Jersey City, Chicago and San Francisco Quartermaster depots and for the purchase of certain other items through ten regional depots in designated operating areas.

To obtain fresh fruits and vegetables, eggs, poultry, dairy products, fresh meats, meat products and fish, 30 purchasing offices, known as quartermaster market centers, have been established. These are strategically located in or close to important markets or market areas, and, like the other offices, each is under the direction of a commissioned purchasing and contract army officer, assisted by civilian specialists and inspectors.

Field headquarters for these 30 market centers is in Chicago, and all carlot purchases are cleared through this latter office. All 30 centers are served by a nationwide teletype hookup, assuring instant interchange of market and buying information and adequate executive control at all times.

This supply system has proved its worth. It has operated with efficiency and economy—of great interest to all who pay taxes—and with a minimum of interference with the civilian needs.

Use of Boneless Beef

Army beef specifications have been developed and are in use covering boned and frozen beef in packages, an item that is being purchased in increasing quantities. There are several advantages in handling beef in this manner. The use of frozen boneless beef in cartons effects a saving of about 50 per cent in shipping and storage space as compared with carcass beef. Also, the frozen, boneless beef does not require experienced meat cutters at points of use, as it is separated into steaks, roasts, stew meat and ground meat. Each of these cuts is then packaged into 50-lb. cartons limited in dimensions to 6 in. in depth to permit rapid freezing at low temperatures.

Quick frozen vegetables are also approved for army purchase, and are used under two conditions—first, when competitive with fresh vegetables, and, secondly, where the proper storage facilities are available at destination. Increasing restrictions on tinplate for cans and lower packaging costs for frosted foods will no doubt influence further

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SOME INFORMATION on refrigeration's role in the U. S. war effort was given in the February 14, issue of the *Provisioner*. In the accompanying article John A. Hawkins, refrigerant consultant, office of the Quartermaster General, Washington, D. C., outlines the uses to which refrigeration is being put by the Army. His remarks are abstracted from an address before the recent convention of the Association of Refrigerated Warehouses.

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army demand for these frozen products.

Changes in the Army's food supply and the steady increase in troop strength have resulted in the need for expanded refrigeration requirements for the Army. Because refrigeration is used for a greatly increased portion of the perishables in the soldier's ration, refrigeration requirement per man is considerably higher than during the first World War. At that time, canning was the principal method of preserving food.

Refrigeration Facilities Vary

Today camps, posts and stations are equipped with refrigerated storage facilities in some form, depending upon individual requirements. The War Department construction manual now provides for a cold storage plant with freezer and cooler service at any point where troop strength is 6,000 or more

men. Smaller installations are constructed in Quartermaster warehouses by insulating and partitioning off selected floor areas.

Larger overseas bases also are equipped with permanent cold storage plants. These are similar in design to army plants located in this country. Smaller bases are served by what are known as SPW 300 refrigerators. These are sectional, prefabricated, walk-in boxes with 300 sq. ft. of floor area. They are mechanically cooled by gasoline engine driven units designed to provide temperatures of 10 degs. F. to 40 degs. F. under extreme climatic conditions, independent of a power and water supply.

Refrigerated truck trailers for army use have been standardized and are used for distributing perishables to and from truck or railheads. These are constructed for combat zone service—to carry the necessary perishable produce to large units of troops under combat conditions.

Cold storage space requirements at army plants are based upon three factors—troop strength, replenishment period and perishable contents of the ration to be used. In general, 4 cu. ft. per man per week is supplied in this country and 3 cu. ft. per man at overseas bases. In serving overseas bases, extended replenishment periods and limited shipping facilities necessitate the substitution of canned or dehydrated products for a portion of the fresh supply afforded in more accessible locations.

The Quartermaster Corps is utilizing, or is responsible for the use of, considerable public cold storage space, particularly at ports of embarkation and centrally located distributing points. It is logical to expect that the demand for this service will be materially increased with further expansion of our armed forces. One reason for this is the steadily increasing activity of our armed



ARMY BONELESS BEEF REQUIRES SPECIAL REFRIGERATION

Don P. Tyler and F. T. Boles, National Live Stock and Meat Board specialists, look over a supply of Army-fresh frozen boneless beef with officers at Fort Sam Houston, Texas.



It's flavor that brings them back for more and it's STANGE'S Cream of Spice Seasonings that give your products this profitable power! Always uniform, always dependable and always full strength, C.O.S. is specially blended to give new zest, new flavor appeal and new sales punch to your sausage, meat loaves and specialties. Write the Stange Chef for details.

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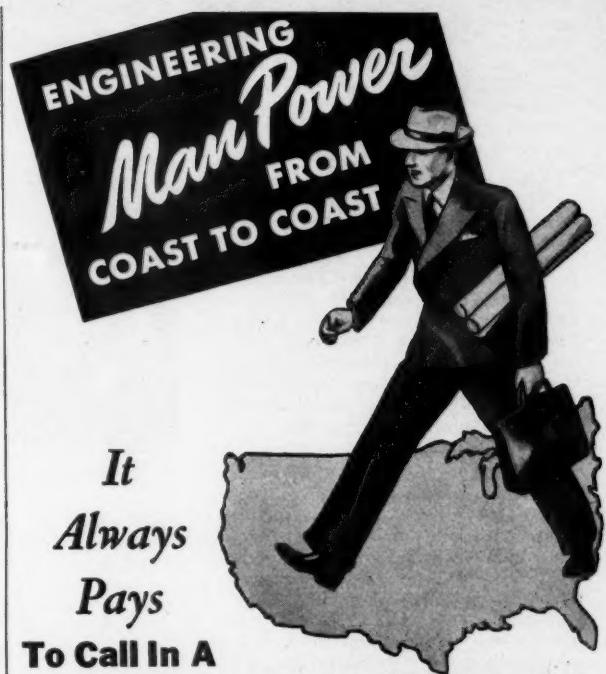


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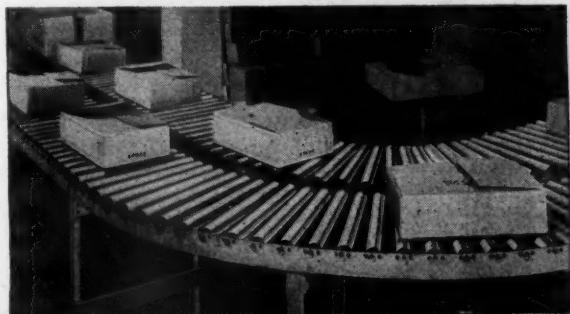
The Standard Conveyor Company with trained, experienced men in offices in fifty-four principal cities in the United States is the leading organization of its kind for nationwide service in conveyor engineering.

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forces beyond our shores, necessitating the transportation of vast amounts of perishable food. To handle this movement, the food must be accumulated and assembled for reshipment. Refrigerated warehouses will become increasingly important, therefore, with emphasis on the demand for more zero freezer storage.

Where public cold storage space is limited, it is necessary to place merchandise under the customary tariff, on a per package or per cwt. basis, such as permits storage in scattered locations as space becomes vacant. However, the army prefers to lease space on a square footage basis, with a handling charge per ton, quoted separately and optional. Under such an arrangement, a definite space commitment is made and the Army's accounting is simplified.

As one army officer said: "There are two primary reasons why we do not wish to store on a package or cwt. basis. One is that we must know, at all times, what space we can depend upon; the other is that we are striving for simplified accounting." The Quartermaster Corps desires to utilize public cold storage space insofar as it is available and suitable for the purpose. However, in using such space, the Quartermaster officers will request and undoubtedly insist upon lease arrangements.

PURCHASE U. S. DEFENSE BONDS AND STAMPS

Less than $\frac{1}{2}$ c PER LB. puts your
PORK SAUSAGE MEAT
in these sales-making
ZIPP Casings



This package is sanitary. It's easy to handle . . . requires no weighing or special container. The casings cut down on shrinkage. And the housewife likes this PORK ROLL because the patties are ready-formed, and left-over meat can be kept free from ice-box odors in the original wrapping. All this extra sales-appeal, for your pork sausage meat costs you less than $\frac{1}{2}$ c per lb. . . probably less than your present packaging. Write for samples and prices on ZIPP Casings for packages of 1 to 5 lbs. or larger.

IDENTIFICATION, INC.

4541 N. Ravenswood Ave.

Chicago, Illinois

Wilson Reports Profitable Business in First Quarter

The first quarter of the current fiscal year was a profitable one for Wilson & Co., with a substantial increase in sales over the corresponding period of 1941.

Edward F. Wilson, president, told company shareholders at their annual meeting in Chicago this week. He predicted that 1942 would be an extremely busy year, marked by increased processing and a vast tonnage going to the Army, Navy and lease-lend agencies.

Mr. Wilson asked shareholders to be patient regarding common dividends, explaining that the arrearage on the preferred had been reduced in 1941 to only \$3 per share, but that the company had been required to borrow heavily, at favorable bank rates, in order to handle heavy inventories. He pointed out that 1941 tax assessments of \$6,000,000 were enough to supply meat to 200,000 soldiers for a year.

E. H. Rawls, vice president of the Guaranty Trust Co., New York, Col. A. A. Sprague and B. E. Sunny were reelected directors for three-year terms.

MANUAL ON SILENT CUTTER

During this critical period when meat plant equipment will be none too plentiful and may be difficult to replace, many packers and sausage manufacturers are planning to the best of their ability to maintain machines and mechanical equipment in first-class operating condition and extend their useful life as long as possible. To aid them in these efforts, the John E. Smith's Sons Co., Buffalo, N. Y., has recently issued the first of a series of manuals designed to give practical and helpful facts on the installation, operation, care and maintenance of Buffalo equipment.

The first of the booklets, "Buffalo Silent Cutters," contains information on the company's self emptying and models 49 B and 44 B silent cutters. In addition to detailed instructions on installing the machines and operating them, lubrication instructions, including lubricant to use on each bearing and frequency of oiling and greasing, knife setting instructions, etc. are given. A repair parts price list is included to simplify and speed up the ordering of replacement parts.

It is the company's intention, it is announced, to have a similar manual for each machine manufactured by the company. Members of the meat industry planning preventive maintenance will find the information in the booklet decidedly worth while. The manual is available to any packer and sausage manufacturer on request.

QUALITY CONTROL VITAL WAR NEED!

With greater production of meat products needed to meet Army, Navy, export and civilian demands, QUALITY CONTROL is a key essential. Equipment must be kept in sanitary condition. Cleaning must be performed easier, faster. That's why so many plants are using SAFE, dependable Oakite materials. FREE 16-page DIGEST gives details.

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OAKITE  **CLEANING**
MATERIALS METHODS SERVICE FOR EVERY CLEANING REQUIREMENT

Easter Ham Sunday

APRIL 5TH

Increased production needs for the big 1942 Easter Ham run require your immediate attention. Make sure your hams are dressed for style and profit by ordering your STOCKINETTES from CAHN today!

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Selling Agent: THE ADLER COMPANY, CINCINNATI

FSCC Expects Offerings at Levels of January 29

OFFICIALS directing FSCC pork buying again warned packers this week that the government will not pay higher prices for pork and lard than the levels at which awards were made on January 29 (see THE NATIONAL PROVISIONER of February 14, page 29), regardless of substantial advances in some pork cuts and live hogs since that date. The statement expressed the hope that more product would be offered and carried the implication that if hog costs are out of line with prices the FSCC is paying "it is just too bad."

The stand taken by the government in its pork buying has put packers in a somewhat precarious position. Except for minor recessions, the live hog market has followed a decidedly higher course in the last three weeks, and this week hit new 16-year highs for the month of February. However, the hog market broke sharply after the government warned packers that prices paid January 29 would again apply this week.

Naturally, the various cuts of pork have moved to higher levels along with the advance in live hog costs. Values of some of the cuts the government buys in large quantities have increased considerably. By way of comparison, salted A.C. bellies, 25/35, were purchased by the FSCC on January 29 within a range of 13.74 to 13.95c, f.o.b. Faribault and Chicago. Carlot quotation, Chicago basis, on 25/35 bellies was 12 1/4c on that date, but the carlot price is now about 14c, with the government offering to buy at the aforementioned prices. The 25/30 bellies were bought by the FSCC on January 29 at 13.87c, f.o.b. Cudahy, and 15c, f.o.b. Boston, against a carlot price of 12 1/4c on that date and 14c on February 18. The 30/35's were bought at 13.75c, f.o.b. Cudahy, and 14.5c, f.o.b. Boston, against a 12 1/4c carlot price then and 14c now. In other words, bellies are now from 1@1 1/4c higher for similar weights than at the time the government set its prices.

It must be remembered that prices of product sold in the carlot market and prices of meats sold to the FSCC are not strictly comparable because of differences in packing, specifications, etc.

Refined lard, which was quoted at 11.15c, Chicago basis, on January 29, was bought boxed by the government at 12.28c, f.o.b. Waterloo, and 13.5c, f.o.b. Jersey City. Refined lard was quoted at 11.42 1/2c on February 18, up .27 1/2c from the January 29 price level.

D.S. fat backs were bought by the government at 10.225c f.o.b. Sioux Falls, and 10.875c, f.o.b. Detroit, against a Chicago carlot quotation on January 29 of 9 1/2c, while the same weights were quoted in the Chicago market at 10 1/2c on February 18; 10/12 backs were bought by the FSCC at 10.475c f.o.b.

Sioux Falls, and 11.125c f.o.b. Detroit, against a carlot quotation of 10 1/2c then and 10 1/2c recently; 12/14 backs were bought at 11c, E. St. Louis and 11.25c, f.o.b. Chicago; wholesale price then was 10 1/2c and was 10 1/2c on February 18.

The expression by the FSCC that it is hoped more product will be available at the January 29 levels comes at a time when packers are handling fewer live animals than during the first month of the year. The peak of the winter packing season is now over, but the rate of lend-lease buying has continued on about the same basis as when more hogs and pork were available.

On five purchase days during January the FSCC bought 74,074,848 lbs. of canned pork, 28,615,661 lbs. of cured pork and 67,241,064 lbs. of lard. Its buying so far for this month, which is for only two weeks, amounts to 26,748,208 lbs. of canned pork, 3,886,176 lbs. of cured pork and 22,470,674 lbs. of lard. The rate of buying of all pork and lard has been lighter since officials directing FSCC buying first warned packers about prices.

Hog slaughter at the 27 leading centers for the week ended February 13, the latest available data, showed a drop of around 100,000 head from a week earlier. Top hogs on Wednesday, Chicago basis, sold at \$13.25 and were at \$11.90 on January 29, a difference of \$1.35 per cwt.

CHICAGO MID-MONTH STOCKS

Lard stocks at Chicago showed a small decline compared with the end of January at the close of business on February 14. A total of 110,476,589 lbs. was on hand compared with 113,262,751 lbs. a month earlier, a decline of a little less than 3 million lbs. However, compared with the same time last year, stocks were 78 million lbs. lighter.

Stocks of bellies also declined during the first two weeks of February compared with the close of the previous month. All bellies, totaling 6,863,942 lbs., were almost 1 million lbs. under January 31, when the total was 7,767,673 lbs. A year ago, holdings were 7,831,628 lbs.

Stocks of provisions at Chicago at the close of trading on February 14:

	Feb. 14, 1942	Jan. 31, 1942	Feb. 14, 1941
P. S. lard ¹	21,920,531	18,117,286	34,287,360
P. S. lard ²	20,195,660	20,973,444	49,824,466
P. S. lard ³	63,066,228	67,565,718	97,382,056
Other lard ...	5,294,172	6,006,303	6,983,729
Total lard....	110,476,589	113,262,751	188,477,611
Contract D. S. cl. bellies ..	1,011,400	640,500	2,664,582
All other D. S. cl. bellies ..	5,852,542	7,118,173	5,167,046
Total D. S. cl. bellies ..	6,863,942	7,767,673	7,831,628
D. S. rib bellies ..	227,000	279,600	458,074

¹Made since Jan. 1, 1942. ²Oct. 1, 1941 to Jan. 1, 1942. ³Previous to Oct. 1, 1941.

CHICAGO PROV. SHIPMENTS

Provision shipments from Chicago for the week ended February 14, 1942:

Week Feb. 14	Previous week	Same week '41
Cured meats, lbs. 23,290,000	27,492,000	15,295,000
Fresh meats, lbs. 57,499,000	43,434,000	53,639,000
Lard, lbs.	11,375,000	8,483,000

CUT-OUT LOSS ON HEAVY HOGS IS SMALLER

(Chicago costs and prices, first four days of week.)

Less loss was shown on heavy hogs in the cut-out test this week than last, for while the cost of the live animal was again higher, the various cuts of pork had more value to ease some of the deficiency between the total value and the total cost alive. Loss on heavies this week was 46c against 64c a week ago. Medium weights were 28c in the red on the loss per cwt. and light hogs showed a 13c per cwt. loss.

—180-220 lbs.— —220-240 lbs.— —240-270 lbs.—

Pct. live wt.	Price per lb.	Value per cwt. alive	Pct. live wt.	Price per lb.	Value per cwt. alive	Pct. live wt.	Price per lb.	Value per cwt. alive	
Regular hams.....	14.10	24.0	\$3.38	13.90	23.6	\$3.28	13.80	22.8	\$3.15
Picnics	5.70	22.7	1.29	5.50	22.8	1.25	5.50	22.5	1.25
Boston butts	4.00	26.6	1.06	4.00	26.3	1.05	4.00	26.1	1.04
Loins (blade in)	9.90	22.9	2.27	9.70	22.4	2.17	9.70	21.6	2.10
Bellies, S. P.	11.00	18.6	2.05	9.70	18.3	1.78	7.90	16.3	1.30
Bellies, D. S.				2.00	13.1	.26	4.00	13.0	.52
Fat backs	1.00	.93	.09	3.00	9.6	.29	4.20	9.9	.42
Plates and jowls	2.50	9.1	.23	2.80	9.1	.25	3.30	9.1	.30
Raw leaf	2.20	11.2	.25	2.10	11.2	.24	2.10	11.2	.24
P. S. lard, rend. wt.	12.40	11.4	1.41	11.40	11.4	1.30	10.60	11.4	1.21
Spareribs	1.70	15.3	.26	1.60	13.0	.21	1.60	12.0	.19
Trimmings	3.00	19.6	.59	2.80	19.6	.55	2.80	19.6	.55
Feet, tails, neckbones	2.00	....	.15	2.00	....	.15	2.00	....	.15
Offal and miscellaneous .....			.53	....		.53	....		.53
TOTAL YIELD AND VALUE.....	69.50	....	\$13.56	70.50	....	\$13.31	71.50	....	\$12.95
Cost of hogs per cwt.....			\$12.90			\$12.80			\$12.77
Condemnation loss .....		.07			.07			.07	
Handling and overhead .....		.72			.63			.57	
TOTAL COST PER CWT. ALIVE			\$13.69			\$13.59			\$13.41
TOTAL VALUE			13.56			13.31			12.95
Loss per cwt.....		.13				.28		.46	
Loss last week.....		.13				.32		.64	

CHICAGO PROVISION MARKETS

From The National Provisioner Daily Market Service

CASH PRICES

Carlot trading loose, basis, f.o.b. Chicago or Chicago basis, Thurs., February 19, 1942

REGULAR HAMS

	Green	*S.P.
8-10	25%	25%
10-12	25%	25%
12-14	25%	25%
14-16	24%	24%
10-16 range	24%	....

BOILING HAMS

	Green	*S.P.
16-18	23% @ 23%	24
18-20	23	24
20-22	23	24
16-20 range	23%	....
16-22 range	23	....

SKINNED HAMS

	Fresh & Fr. Fran.	*S.P.
10-12	26%	27%
12-14	25% @ 25%	26
14-16	24% @ 25	25%
16-18	24% @ 25	25%
18-20	24% @ 25	25%
20-22	24% @ 25	25%
22-24	24% @ 25	25%
24-26	24% @ 25	25%
26-30	24% @ 25	25%
25-up, 2's inc.	24% @ 25	....

PICNICS

	Green	*S.P.
4-6	23	23
6-8	23	23
8-10	23	23
10-12	23	23
12-14	23	23
8-up, 2's inc.	23	....

Short shank 3% over.

BELLIES

	(Square cut seedless)	*S.P.
6-8	19%	20%
8-10	19	20
10-12	18%	19%
12-14	16%	17%
14-16	16% @ 16%	17%
16-18	16% @ 16%	17%

GREEN AMERICAN BELLIES

	15%	15
18-20	15%	15

*Quotations represent No. 1 new cure.

D. S. BELLIES

	Clear	Rib
16-18	14 1/4 n	....
18-20	14	12.42 1/2
20-25	14	12.42 1/2
25-30	14	12.42 1/2
30-35	14	12.42 1/2
35-40	14	12.42 1/2
40-50	13 1/4	12.42 1/2

D. S. FAT BACKS

	10%	10%	10%	10%
6-8	10%	10%	10%	10%
8-10	10%	10%	10%	10%
10-12	10%	10%	10%	10%
12-14	10%	10%	10%	10%
14-16	11%	11%	11%	11%
16-18	11%	11%	11%	11%
18-20	11%	11%	11%	11%
20-25	11%	11%	11%	11%

OTHER D. S. MEATS

	6-8	8-10	8-12	8-14	8-16	8-18	8-20	8-22	8-24	8-26	8-28	8-30	8-32	8-34	8-36	8-38	8-40	8-42	8-44	8-46	8-48	8-50	8-52	8-54	8-56	8-58	8-60	8-62	8-64	8-66	8-68	8-70	8-72	8-74	8-76	8-78	8-80	8-82	8-84	8-86	8-88	8-90	8-92	8-94	8-96	8-98	8-100	8-102	8-104	8-106	8-108	8-110	8-112	8-114	8-116	8-118	8-120	8-122	8-124	8-126	8-128	8-130	8-132	8-134	8-136	8-138	8-140	8-142	8-144	8-146	8-148	8-150	8-152	8-154	8-156	8-158	8-160	8-162	8-164	8-166	8-168	8-170	8-172	8-174	8-176	8-178	8-180	8-182	8-184	8-186	8-188	8-190	8-192	8-194	8-196	8-198	8-200	8-202	8-204	8-206	8-208	8-210	8-212	8-214	8-216	8-218	8-220	8-222	8-224	8-226	8-228	8-230	8-232	8-234	8-236	8-238	8-240	8-242	8-244	8-246	8-248	8-250	8-252	8-254	8-256	8-258	8-260	8-262	8-264	8-266	8-268	8-270	8-272	8-274	8-276	8-278	8-280	8-282	8-284	8-286	8-288	8-290	8-292	8-294	8-296	8-298	8-300	8-302	8-304	8-306	8-308	8-310	8-312	8-314	8-316	8-318	8-320	8-322	8-324	8-326	8-328	8-330	8-332	8-334	8-336	8-338	8-340	8-342	8-344	8-346	8-348	8-350	8-352	8-354	8-356	8-358	8-360	8-362	8-364	8-366	8-368	8-370	8-372	8-374	8-376	8-378	8-380	8-382	8-384	8-386	8-388	8-390	8-392	8-394	8-396	8-398	8-400	8-402	8-404	8-406	8-408	8-410	8-412	8-414	8-416	8-418	8-420	8-422	8-424	8-426	8-428	8-430	8-432	8-434	8-436	8-438	8-440	8-442	8-444	8-446	8-448	8-450	8-452	8-454	8-456	8-458	8-460	8-462	8-464	8-466	8-468	8-470	8-472	8-474	8-476	8-478	8-480	8-482	8-484	8-486	8-488	8-490	8-492	8-494	8-496	8-498	8-500	8-502	8-504	8-506	8-508	8-510	8-512	8-514	8-516	8-518	8-520	8-522	8-524	8-526	8-528	8-530	8-532	8-534	8-536	8-538	8-540	8-542	8-544	8-546	8-548	8-550	8-552	8-554	8-556	8-558	8-560	8-562	8-564	8-566	8-568	8-570	8-572	8-574	8-576	8-578	8-580	8-582	8-584	8-586	8-588	8-590	8-592	8-594	8-596	8-598	8-600	8-602	8-604	8-606	8-608	8-610	8-612	8-614	8-616	8-618	8-620	8-622	8-624	8-626	8-628	8-630	8-632	8-634	8-636	8-638	8-640	8-642	8-644	8-646	8-648	8-650	8-652	8-654	8-656	8-658	8-660	8-662	8-664	8-666	8-668	8-670	8-672	8-674	8-676	8-678	8-680	8-682	8-684	8-686	8-688	8-690	8-692	8-694	8-696	8-698	8-700	8-702	8-704	8-706	8-708	8-710	8-712	8-714	8-716	8-718	8-720	8-722	8-724	8-726	8-728	8-730	8-732	8-734	8-736	8-738	8-740	8-742	8-744	8-746	8-748	8-750	8-752	8-754	8-756	8-758	8-760	8-762	8-764	8-766	8-768	8-770	8-772	8-774	8-776	8-778	8-780	8-782	8-784	8-786	8-788	8-790	8-792	8-794	8-796	8-798	8-800	8-802	8-804	8-806	8-808	8-810	8-812	8-814	8-816	8-818	8-820	8-822	8-824	8-826	8-828	8-830	8-832	8-834	8-836	8-838	8-840	8-842	8-844	8-846	8-848	8-850	8-852	8-854	8-856	8-858	8-860	8-862	8-864	8-866	8-868	8-870	8-872	8-874	8-876	8-878	8-880	8-882	8-884	8-886	8-888	8-890	8-892	8-894	8-896	8-898	8-900	8-902	8-904	8-906	8-908	8-910	8-912	8-914	8-916	8-918	8-920	8-922	8-924	8-926	8-928	8-930	8-932	8-934	8-936	8-938	8-940	8-942	8-944	8-946	8-948	8-950	8-952	8-954	8-956	8-958	8-960	8-962	8-964	8-966	8-968	8-970	8-972	8-974	8-976	8-978	8-980	8-982	8-984	8-986	8-988	8-990	8-992	8-994	8-996	8-998	8-1000	8-1002	8-1004	8-1006	8-1008	8-1010	8-1012	8-1014	8-1016	8-1018	8-1020	8-1022	8-1024	8-1026	8-1028	8-1030	8-1032	8-1034	8-1036	8-1038	8-1040	8-1042	8-1044	8-1046	8-1048	8-1050	8-1052	8-1054	8-1056	8-1058	8-1060	8-1062	8-1064	8-1066	8-1068	8-1070	8-1072	8-1074	8-1076	8-1078	8-1080	8-1082	8-1084	8-1086	8-1088	8-1090	8-1092	8-1094	8-1096	8-1098	8-1100	8-1102	8-1104	8-1106	8-1108	8-1110	8-1112	8-1114	8-1116	8-1118	8-1120	8-1122	8-1124	8-1126	8-1128	8-1130	8-1132	8-1134	8-1136	8-1138	8-1140	8-1142	8-1144	8-1146	8-1148	8-1150	8-1152	8-1154	8-1156	8-1158	8-1160	8-1162	8-1164	8-1166	8-1168	8-1170	8-1172	8-1174	8-1176	8-1178	8-1180	8-1182	8-1184	8-1186	8-1188	8-1190	8-1192	8-1194	8-1196	8-1198	8-1200	8-1202	8-1204	8-1206	8-1208	8-1210	8-1212	8-1214	8-1216	8-1218	8-1220	8-1222	8-1224	8-1226	8-1228	8-1230	8-1232	8-1234	8-1236	8-1238	8-1240	8-1242	8-1244	8-1246	8-1248	8-1250	8-1252	8-1254	8-1256	8-1258	8-1260	8-1262	8-1264	8-1266	8-1268	8-1270	8-1272	8-1274	8-1276	8-1278	8-1280	8-1282	8-1284	8-1286	8-1288	8-1290	8-1292	8-1294	8-1296	8-1298	8-1300	8-1302	8-1304	8-1306	8-1308	8-1310	8-1312	8-1314	8-1316	8-1318	8-1320	8-1322	8-1324	8-1326	8-1328	8-1330	8-1332	8-1334	8-1336	8-1338	8-1340	8-1342	8-1344	8-1346	8-1348	8-1350	8-1352	8-1354	8-1356	8-1358	8-1360	8-1362	8-1364	8-1366	8-1368	8-1370	8-1372	8-1374	8-1376	8-1378	8-1380	8-1382	8-1384	8-1386	8-1388	8-1390	8-1392	8-1394	8-1396	8-1398	8-1400	8-1402	8-1404	8-1406	8-1408	8-1410	8-1412	8-1414	8-1416	8-1418	8-1420	8-1422	8-1424	8-1426	8-1428	8-1430	8-1432	8-1434	8-1436	8-1438	8-1440	8-1442	8-1444	8-1446	8-1448	8-1450	8-1452	8-1454	8-1456	8-1458	8-1460	8-1462	8-1464	8-1466	8-1468</th

MEAT AND SUPPLIES PRICES

Chicago

WHOLESALE FRESH MEATS

Carcass Beef

	Week ended Feb. 18, 1942	Cor. week, per lb.
Primes native steers—		
400-600	nominal	21½
600-800	nominal	21½
800-1000	nominal	22
Good native steers—		
400-600	20% @ 21	18
600-800	19 @ 20	18
800-1000	18½ @ 19	18
Medium steers—		
400-600	19 @ 20	16½ @ 17
600-800	18½ @ 19	16½ @ 17
800-1000	18 @ 18½	16½ @ 17
Heifers, good, 400-600	20 @ 20½	16½ @ 17½
Cows, 400-600	15 @ 15½	12½ @ 13
Hind quarters, choice		24½
Fore quarters, choice	18	17

Beef Cuts

Steer loins, choice, 60/65	32	unquoted
Steer loins, No. 1	30	34
Steer loins, No. 2	28	30
Steer short loins, choice, 30/35-40	unquoted	45
Steer short loins, No. 1	36	45
Steer short loins, No. 2	31	37
Steer loin ends (hips)	26	29
Steer loin ends, No. 2	25	29
Cow loins	19½	18
Cow short loins	19½	20
Cow loin ends (hips)	21	19
Steer ribs, choice, 30/40	24	unquoted
Steer ribs, No. 1	22	27
Steer ribs, No. 2	20	23
Cow ribs, No. 2	18	18
Cow ribs, No. 3	16½	18
Steer rounde, choice, 80/100	20	unquoted
Steer rounde, No. 1	19½	19½
Steer rounde, No. 2	21	19
Steer chuck, choice, 80/100	19½	unquoted
Steer chuck, No. 2	18½	16
Cow rounds	18½	14
Cow chuck	17	13
Steer plates	13	11½
Medium plates	12½	10½
Briskets No. 1	15½	16½
Cow navel ends	12	10
Steer navel ends	11	10
Fore shanks	12½	11
Hind shanks	10	9
Steer loins, No. 1 bns.	65	70
Strip loins, No. 2	43	35
Sirloin butts, No. 1	36	30
Sirloin butts, No. 2	34	22
Beef tenderloins, No. 1	65	70
Beef tenderloins, No. 2	60	65
Rump butts	28	25
Flank steaks	26	27
Shoulder clods	22½	17
Hanging tenderloins	18	16
Insides, green, 12/18 range	27	19½
Outsides, green, 8 lbs. up	25	17½
Knuckles, green, 8 lbs. up	26	18½

Beef Products

Brains	10	8
Heart	12	11
Tongues	18	18
Sweetbreads	27½	14
Ox-tail	10	12
Fresh tripe, plain	10	5
Fresh tripe, H. C.	15	10
Livers	30	23
Kidneys	8	8

Veal

Choice carcass	21	21
Good carcass	19	19 @ 20
Good saddles	26	25 @ 26
Good racks	18	15½
Medium racks	16	12½ @ 13½

Veal Products

Brains, each	13	11
Sweetbreads	38	31
Calf livers	57	53

Lamb

Choice lambs	19	18
Medium lambs	18	17
Choice mutton	23	21
Medium saddles	22	20
Choice forces	16	15
Medium forces	15	14
Lamb fries	28	28
Lamb tongues	17	17
Lamb kidneys	25	15

Mutton

Heavy sheep	9	7
Light sheep	10½	10
Heavy saddles	10½	10
Light saddles	14	12
Heavy forces	7½	6
Light forces	8½	8
Mutton legs	14½	18
Mutton loins	12½	10
Mutton stew	8	6
Sheep tongues	11	11
Sheep heads, each	11	11

FRESH PORK AND PORK PRODUCTS

Pork loins, 8/10 lbs. av.	25	18
Picnics	29½	12½
Skinned shoulder	29	13½
Tenderloins	35	32
Spareribs	17½	13
Back fat	12	7
Boston butts, cellar trim, 2/4	28	16½
Hocks	19	11
Tails	12	7
New bones	4½	8½
Slip bones	18	8
Blade bones	17	10
Pigs' feet	5	3½
Kidneys, per lb.	8	4
Livers	16	8
Brains	12	7
Ears	6	4
Snouts	7½	4½
Heads	8	6
Chitterlings	7½	6

WHOLESALE SMOKED MEATS

Fancy regular hams, 14/16 lbs., parchment paper	20	@ 29%
Fancy skinned hams, 14/16 lbs., parchment paper	20	@ 30
Standard reg. hams, 14/16 lbs., plain	28	@ 28½
Picnics, 4/8 lbs., short shank, plain	21	@ 22
Picnics, 4/8 lbs., long shank, plain	20½	@ 21½
Fancy bacon, 6/8 lbs., plain	27½	@ 28
Standard bacon, 6/8 lbs., plain	24½	@ 25
No. 1 beef sets, smoked	12½ lbs.	47 @ 48
Outside, 6/9 lbs.	45	@ 46
Knuckles, 5½ lbs.	45	@ 46
Cooked hams, choice, skin on, fatted	45	
Cooked hams, choice, skinless, fatted	49½	
Cooked picnics, skin on, fatted	nominal	
Cooked picnics, skinned, fatted	nominal	

VINEGAR PICKLED PRODUCTS

Pork feet, 200-lb. bbl.	82½	75
Lamb tongue, short cut, 200-lb. bbl.	69	50

Regular tripe, 200-lb. bbl. 23.50

Honeycomb tripe, 200-lb. bbl. 28.00

Pocket honeycomb tripe, 200-lb. bbl. 31.50

BARRELED PORK AND BEEF

Clear fat back pork:	
70-90 pieces	\$22.75
80-100 pieces	22.25
100-125 pieces	22.25
Clear plate pork, 25-35 pieces	20.00
Hean pork	25.00
Brisket pork	32.00
Plate beef	25.00
Pork hearts	12 @ 12½
Pork livers	12 @ 12½
Native boneless bull meat (heavy)	20½
Boneless chuck	21 @ 21½
Shank meat	18 @ 18½
Beef trimmings	13½ @ 14
Dressed canners, 350 lbs. and up	13½ @ 14
Dressed cutter cows, 400-450 lbs.	14½ @ 15
Dr. bologna bulls, 600 lbs. and up	16 @ 16½
Tongues, No. 1 canner trim	15

SAUSAGE MATERIALS

(Packed basis.)

Regular pork trimmings	19½ @ 20
Special lean pork trimmings 85%	.50½ @ 31
Extra lean pork trimmings 95%	.32 @ 32½
Pork cheek meat (trimmed)	17½
Pork hearts	12 @ 12½
Pork livers	12 @ 12½
Native boneless bull meat (heavy)	20½
Boneless chuck	21 @ 21½
Shank meat	18 @ 18½
Beef trimmings	13½ @ 14
Dressed canners, 350 lbs. and up	13½ @ 14
Dressed cutter cows, 400-450 lbs.	14½ @ 15
Dr. bologna bulls, 600 lbs. and up	16 @ 16½
Tongue and blood	27
Blood sausage	23
Souse	20
Polish sausage	29½
Head cheese	19
New England luncheon specialty	33½
Minced luncheon specialty, choice	25½
Tongue and blood	27
Bologna in beef bungs, choice	24½
Bologna in beef middles, choice	24½
Liver sausage in beef rounds	20½
Liver sausage in hog bungs	22½
Smoked liver sausage in hog bungs	29½
Frankfurters, in sheep casings	30½
Frankfurters, in hog casings	29½
Skinless frankfurters	29½
Bologna in beef bungs, choice	24½
Bologna in beef middles, choice	24½
Liver sausage in hog bungs	22½
Smoked liver sausage in hog bungs	29½
Head cheese	19
New England luncheon specialty	33½
Minced luncheon specialty, choice	25½
Tongue and blood	27
Blood sausage	23
Souse	20
Polish sausage	30
Cervelat, choice, in hog bungs	51
Thuringer	25
Farmer	40
Holsteiner	40
B. C. salami, choice	47
Milano salami, choice, in hog bungs	48
B. C. salami, new condition	29
Frisées, choice, in hog middles	51
Genoa style salami, choice	56
Pepperoni	45½
Mortadella, new condition	27
Cappicola (cooked)	49
Italian style hams	48½

CURING MATERIALS

Cwt.

Nitrite of soda (Chicago w.h.s. stock)	
In 400-lb. bbls., delivered	\$ 8.75
Salt peter, less than ton lots, f.o.b. N. Y.	
Dbl. refined granulated	8.00
Small crystals	12.00
Medium crystals	13.00
Large crystals	14.00
Pure rfd. gran. nitrate of soda	4.00
Pure rfd. powdered nitrate of soda	unquoted
Salt, per ton, in minimum car of 80,000 lbs.	
only, f.o.b. Chicago, per ton:	
Granulated, kiln dried	9.70
Millions, kiln dried	12.70
Rock, bulk, 40 ton cars	8.80
Sugar	
Raw, 96 basis, f.o.b. New Orleans	3.74
Standard gran., f.o.b. refiners (2%)	5.45
Packers' curing sugar, 250 lb. bags, f.o.b. Reserve, Ia., less 2%	5.10
Dextrose, in car lots, per cwt. (cotton)	4.77
in paper bags.	4.72

SAUSAGE CASINGS

(F. O. B. Chicago)

(Prices quoted to manufacturers of sausage.)	
Beef casings:	
Domestic rounds, 180 pack	.20
Domestic rounds, 140 pack	.35
Export, extra, wide	.50
Export rounds, medium	.28
Export rounds, narrow	.26
No. 1 weasands	.07
No. 2 weasands	.06
No. 1 hungs	.17
No. 2 hungs	.12
Middle, medium, 1½ @ 2 in.	.50
Middle, select, wide, 2@2½ in.	.65
Middle, select, extra, 2½ in. & up	.90
Middle, select, extra, 2½ in. & up	.95
Dried or salted bladders:	
12-15 in. wide, flat	1.10
10-12 in. wide, flat	.65 @ .70
10-12 in. wide, flat	.40
6-8 in. wide, flat	.26
Pork casings:	
Narrow, 20 mm. & dn., per 100 yds...	2.80
Narrow, medium, 28/32 mm., per 100 yds.	2.30
Medium, regular	1.90
English, medium	1.70
Wide, per 100 yds.	1.55
Extra wide, per 100 yds.	1.40
Export bungs:	
Large prime bungs	.20
Medium prime bungs	.18
Small prime bungs	.09
Middle, per set	.20

SPICES

(Basis Chicago, original bbls., bags or bales.)	
Whole Ground	
Allspice, prime	.26
Resifted	.27½
Chili pepper	.84
Powder	.83
Cloves, Amboyna	.28
Zanzibar	.22
Ginger, African	.51
Mace, Fancy Banda	1.02
Indonesian	.90
East & West Indies Blend	.92
Mustard, fancy	.84
No. 1	.29

MARKET PRICES

New York

DRESSED BEEF

City Dressed

Choice, native, heavy.....	19 @ 20
Choice, native, light.....	20 @ 22
Native, common to fair.....	17 @ 18

Western Dressed Beef

Native steers, good, 600-800 lbs.	19 @ 20 1/2
Native choice yearlings, 400-600 lbs.	21 @ 22
Good to choice heifers.....	19 @ 20
Good to choice cows.....	16 1/2 @ 17
Common to fair cows.....	15 1/2 @ 16 1/2
Fresh bologna bulls.....	17 @ 17 1/2

BEEF CUTS

Western

City

No. 1 ribs, prime.....	25 @ 26
No. 2 ribs.....	23 @ 24
No. 3 ribs.....	22 @ 23
No. 4 loins, prime.....	25 @ 26
No. 2 loins.....	22 @ 23
No. 3 loins.....	20 @ 21
No. 1 hinds and ribs.....	25 @ 26
No. 2 hinds and ribs.....	22 @ 23
No. 1 rounds.....	23 @ 24
No. 2 rounds.....	21 @ 22
No. 3 rounds.....	20 @ 21
Rolls, reg. 4/6 lbs. av.....	24 @ 24
Rolls, reg. 6/8 lbs. av.....	25 @ 25
Tenderloins, steers.....	30 @ 35
Tenderloins, cows.....	30 @ 40
Tenderloins, bulls.....	35 @ 45
Shoulder clods.....	24 @ 25

DRESSED VEAL

Good.....	22 @ 23
Medium.....	21 @ 22
Common.....	20 @ 21

DRESSED SHEEP AND LAMBS

Lambs, good to choice.....	21 @ 22
Lambs, good to medium.....	20 @ 21
Lambs, medium.....	19 @ 20
Sheep, good.....	9 @ 12
Sheep, medium.....	7 @ 9

DRESSED HOGS

Hogs, good and choice (110-140 lbs.)	19.25
Pigs, small lots (60-110 lbs.)	20.50

head on; leaf fat in.....

FRESH PORK CUTS

Western

Pork loins, fresh, 10/12 lbs.....	25 1/2 @ 26 1/2
Shoulders, 10/12 lbs.....	25 1/2 @ 25 1/2
Butts, regular, 4/6 lbs. av.....	28 1/2 @ 29 1/2
Hams, regular, 10/12 lbs.....	28 @ 28
Hams, unskinned, fresh, 10/12 lbs.....	28 @ 29
Picnics, fresh, 6/8 lbs. av.....	23 @ 24
Pork trimmings, 90/95% lean.....	34 1/2 @ 35 1/2
Pork trimmings, regular, 50% lean.....	22 1/2 @ 23 1/2
Spareribs, medium.....	17 1/2 @ 18 1/2
Pork loins, fresh, 10/12 lbs.....	27 @ 28
Shoulders, 6/8 lbs. av.....	25 @ 25 1/2
Butts, regular, 1 1/2/3 lbs. av.....	35 @ 35 1/2
Hams, regular, fresh, 10/12 lbs.....	27 1/2 @ 28
Hams, skinned, fresh, 10/12 lbs.....	29 1/2 @ 30
Picnics, fresh, 4/6 lbs. av.....	24 @ 25
Pork trimmings, extra lean, 90/95% lean.....	34 1/2 @ 35
Pork trimmings, regular, 50% lean.....	22 @ 23
Spareribs, medium.....	19 @ 20
Boston, butts, 4/6 lbs. av.....	30 @ 31

COOKED HAMS

Cooked hams, choice, skin on, fatted.....	50
Cooked hams, choice, skinless.....	53

SMOKED MEATS

Regular hams, 8/10 lbs. av.....	31 @ 32
Regular hams, 10/12 lbs. av.....	31 @ 32
Regular hams, 12/14 lbs. av.....	31 @ 32
Skinned hams, 10/12 lbs. av.....	31 @ 32
Skinned hams, 12/14 lbs. av.....	31 @ 32
Skinned hams, 16/18 lbs. av.....	30 @ 31
Skinned hams, 18/20 lbs. av.....	30 @ 31
Picnics, 4/6 lbs. av.....	26 @ 26 1/2
Picnics, 6/8 lbs. av.....	25 @ 26
Bacon, boneless, western.....	27 1/2 @ 28
Bacon, boneless, city.....	27 @ 28
Beef tongue, light.....	22 @ 23
Beef tongue, heavy.....	30 @ 31

BUTCHERS' FAT

Shop fat.....	\$4.00 per cwt.
Breast fat.....	5.00 per cwt.
Edible suet.....	5.75 per cwt.
Inedible suet.....	5.50 per cwt.

GREEN CALFSKINS

5-9 9/16-12 1/2 12 1/2-14 14-18 18 up	
Prime No. 1 veals.....	3.20 8.55 3.40 3.70
Prime No. 2 veals.....	2.90 8.05 3.10 3.30
Buttermilk No. 1.....	2.70 2.50 2.95
Buttermilk No. 2.....	2.55 2.70 2.75
Branded grabby.....	1.75 1.90 1.95 2.00
Number 3.....	1.75 1.90 1.95 2.00

WHOLESALE DRESSED MEAT PRICES

Wholesale prices of western dressed meats, quoted by the U. S. Department of Agriculture, Agricultural Marketing Service, February 19, 1942:

Fresh Beef:	CHICAGO	BOSTON	NEW YORK	PHILA.
STEER, Choice:				
400-500 lbs. ¹	\$20.50 @ 21.50			
500-600 lbs.	20.00 @ 21.00			
600-700 lbs. ²	19.50 @ 20.50	\$19.50 @ 20.50	20.50 @ 21.00	\$21.00 @ 21.50
700-800 lbs. ³	19.00 @ 20.00	19.50 @ 20.00	19.50 @ 20.50	20.00 @ 21.00
STEER, Good:				
400-500 lbs. ¹	19.00 @ 20.50			
500-600 lbs.	18.00 @ 19.50			
600-700 lbs. ²	18.00 @ 19.50	18.50 @ 19.50	19.50 @ 20.50	19.00 @ 20.50
700-800 lbs. ³	17.50 @ 19.00	18.50 @ 19.50	18.50 @ 19.50	19.00 @ 20.00
STEER, Commercial:				
400-600 lbs. ¹	16.00 @ 18.00			
600-700 lbs. ²	16.00 @ 17.50	17.50 @ 18.50	17.00 @ 18.00	17.50 @ 18.50
STEER, Utility:				
400-600 lbs. ¹	15.00 @ 16.00	16.50 @ 17.50	16.00 @ 17.00	

COW (All weights):				
Commercial.....	15.50 @ 16.50	16.00 @ 17.00	16.00 @ 16.50	
Utility.....	15.00 @ 15.50	15.50 @ 16.00	15.00 @ 16.00	15.50 @ 16.00
Cutter.....	14.75 @ 15.00	15.00 @ 15.50	14.50 @ 15.00	15.00 @ 15.50
Canner.....	13.75 @ 14.00			

FRESH Veal and Calf: ³				
VEAL, Choice:				
80-130 lbs.	20.00 @ 22.00	21.00 @ 23.00	20.00 @ 23.00	21.00 @ 22.00
130-170 lbs.	20.00 @ 21.00			
VEAL, Good:				
50-80 lbs.	17.00 @ 18.00	18.50 @ 20.00	18.00 @ 19.00	18.00 @ 20.00
80-130 lbs.	18.00 @ 20.00	19.50 @ 21.00	19.00 @ 20.00	19.00 @ 21.00
130-170 lbs.	18.00 @ 19.00			
VEAL, Commercial:				
30-40 lbs.	20.00 @ 20.50	20.50 @ 21.50	19.50 @ 21.00	20.00 @ 21.00
40-45 lbs.	18.50 @ 20.00	19.50 @ 20.50	18.50 @ 19.50	19.00 @ 20.00
45-50 lbs.	17.50 @ 18.50	18.50 @ 19.50	17.50 @ 18.50	18.00 @ 19.00
50-60 lbs.	16.50 @ 17.50	17.50 @ 18.50	16.50 @ 17.50	16.00 @ 17.00
LAMB, Good:				
30-40 lbs.	18.50 @ 20.00	18.50 @ 20.50	18.50 @ 19.50	19.00 @ 20.00
40-45 lbs.	17.50 @ 18.50	18.50 @ 19.50	18.00 @ 18.50	18.50 @ 19.50
45-50 lbs.	16.50 @ 17.50	17.50 @ 18.50	17.00 @ 17.50	17.00 @ 18.00
50-60 lbs.	16.00 @ 16.50	16.50 @ 17.50	16.00 @ 17.00	16.00 @ 17.00
LAMB, Good:				
30-40 lbs.	18.50 @ 20.00	18.50 @ 20.50	18.50 @ 19.50	19.00 @ 20.00
40-45 lbs.	17.50 @ 18.50	18.50 @ 19.50	18.00 @ 18.50	18.50 @ 19.50
45-50 lbs.	16.50 @ 17.50	17.50 @ 18.50	17.00 @ 17.50	17.00 @ 18.00
50-60 lbs.	16.00 @ 16.50	16.50 @ 17.50	16.00 @ 17.00	16.00 @ 17.00
LAMB, Commercial:				
All weights.....	16.00 @ 17.00	16.00 @ 17.50	16.00 @ 17.00	16.00 @ 17.00
LAMB, Utility:				
All weights.....	15.00 @ 16.00	15.00 @ 16.00	15.00 @ 16.50	16.00 @ 16.50
MUTTON (Ewe), 70 lbs. down:				
Good.....	9.00 @ 10.00	11.00 @ 12.00	10.50 @ 11.00	
Commercial.....	8.50 @ 9.00	10.00 @ 11.00	9.50 @ 10.50	
Utility.....	8.00 @ 8.50	8.50 @ 10.00	8.00 @ 9.50	

FRESH Pork Cuts: ⁴				
LOINS No. 1, (Bladeless Incl.):				
8-10 lbs.	24.00 @ 25.00	26.00 @ 27.00	25.50 @ 26.00	25.00 @ 26.00
10-12 lbs.	23.50 @ 24.50	26.00 @ 27.00	25.50 @ 26.00	25.00 @ 26.00
12-15 lbs.	23.00 @ 23.50	25.00 @ 26.00	24.00 @ 25.50	24.00 @ 25.00
16-22 lbs.	22.00 @ 22.50			
SHOULDERS, Skinned, N. Y. Style:				
8-12 lbs.	24.50 @ 25.00		25.00 @ 26.00	
BUTTS, Boston Style:				
4-8 lbs.	27.00 @ 28.00		29.00 @ 30.00	28.00 @ 29.00
SPARE RIBS:				
Half sheets.....	16.00 @ 17.00			
TRIMMINGS:				
Regular.....	19.50 @ 20.00			

Includes heifer 300-450 lbs. and steer down to 300 lbs. at Chicago. ² Includes Kosher beef sales at Chicago. ³ Skin on at Chicago and New York; equivalent weight skin off at Boston and Philadelphia. ⁴ Based on 50-100 lb. box sales to retailers.				
All quotations in dollars per hundredweight. Beef, veal, lamb, and mutton prices apply to straight and calculated carcass bases.				

FANCY MEATS				
Fresh steer tongues, untrimmed, per lb.....	17			
Fresh steer tongues, l.c. trimmed, per lb.....	20			
Sweetbreads, beef, per lb.....	25			
Sweetbreads, veal, a pair.....	60			
Beef kidneys, per lb.....	11			
Livers, beef, per lb.....	20			
Oxtails, per lb.....	18			
Beef hanging tenders, per lb.....	30			
Lamb fries, a pair.....	12			

CALIF. INSPECTED SLAUGHTER				

Fair Trade, Firm Market in Tallow and Greases

NEW YORK, FEBRUARY 18, 1942

TALLOW.—A fair trade and firm market at ceiling price levels again featured tallow at New York this week. Producers had no difficulty moving supplies at the maximum figures, as there was broad buying interest from both local and outside soapers. It was difficult to estimate the volume of trade, but indications were that the smaller producers readily were moving their make, and the larger ones indicated there was nothing to be gained in holding supplies. While no restrictions have been made on soap production, large soapers in the East, it was understood, were limiting their sales to distributors in the metropolitan area. Edible was called 10.21c nominal; extra, 9.71½c, and special, 9.57½c.

STEARINE.—The market was quiet but firm at New York. Last sales of oleo passed at 10½c.

OLEO OIL.—Demand continued fair and the market rather firm at New York. Extra was quoted at 11½@12c; prime, 11½@11½c, and lower grades, 11@11½c.

GREASE OIL.—Demand was fair at New York and the market firm and unchanged. No. 1 quoted at 14½c; No. 2, 14c, extra 13c; extra No. 1, 14½c; winter strained, 15c; prime burning, 15½c, and prime inedible, 15½c.

NEATSFOOT OIL.—Demand was fairly good and the market firm at New York. Extra was quoted at 14½c; No. 1, 14c; prime, 14½c, and pure, 17½c.

GREASES.—The situation in greases was identical with that prevailing the previous week. A fair business passed at New York at the ceiling price levels, and soapers continued to show interest in additional supplies, while producers, apparently satisfied with the prevailing market, were reported letting go of their supplies as produced. Choice white was quoted at 9.71½c; yellow and house, 9.29½c, and brown, 9@9½c.

CHICAGO, FEBRUARY 19, 1942

TALLOW.—The Chicago tallow market this week continued to hold firm on moderate trade at ceiling levels, which were paid on all items except edible tallow. On Monday, a couple of scattered tanks were reported moving at 9.71½c for prime and 9.43½c for special, Chicago and Cincinnati. The lighter hog kill during the past week or so was a strengthening factor. Tuesday's market was firm, characterized by a good demand and moderate offerings, with trade continuing in a routine way for most items at ceiling levels. Wednesday's trade was light and scattered, involving a few tanks of prime and special at ceiling prices, and the market was called firm. Thursday's prices, mostly ceiling levels, were as follows: Edible, 9.71½c; fancy, 9.85½c; prime, 9.71½c; special, 9.43½c; No. 1, 9.29½c.

STEARINE.—The market on stearine was firm at previous prices. Prime oleo, 10½c; yellow grease, 9½@9½c.

OLEO OIL.—Oleo oil was steady with extra 13c and prime, 12½c.

NEATSFOOT OIL.—Quotations were: Extra neatsfoot oil, 13½c; No. 1, 13½c; prime, 14c; pure, 17c, and cold test, 27c.

GREASE OIL.—Quotations were as follows: No. 1, 13c; No. 2, 12½c; extra, 13½c; extra No. 1, 13½c; extra winter strained, 14c; prime burning, 14½c; prime inedible, 14½c, and special No. 1, 13½c. Acidless tallow oil was 13c.

GREASES.—The grease market this week was firm, with most grades moving in a limited way at ceiling prices.

Several tanks of white and yellow grease were reported at list prices on Tuesday, while on Wednesday another tank or so of white grease moved at list. Reported trading on Thursday involved several tanks of white grease. Quotations on Thursday were: Choice white, 9.71½c; A-white, 9.57½c; B-white, 9.43½c; yellow, 9.15½c, and brown, 8.74½c.

BY-PRODUCTS MARKETS

(Quotations are basis Chicago, February 19.)

A little stronger tendency developed in some of the by-products items this week, while others held firm. Cracklings were reported moving in light volume in the ranges shown; very light sales of 11@12% tankage were also reported. Gelatine stocks continued to move at ceiling levels, while packinghouse feeds were firm.

Blood

Unit	
Ammonia	\$5.60@5.70

Unground, loose \$5.60@5.70

Digester Feed Tankage Materials

Unground, 11 to 12% amm., loose	\$3.75@5.85
Unground, 6 to 10% choice quality	6.00
Liquid stick	2.50

Packinghouse Feeds

Carlots,	
Per ton	
60% digester tankage	\$80.00
50% meat and bone scrapes	75.00
Blood-meal	95.00
Special steam bone-meal	50.00

Bone Meals (Fertilizer Grades)

Per ton	
Steam, ground, 3 & 50	\$35.00@37.50
Steam, ground, 2 & 26	35.00@37.50

Fertilizer Materials

Per ton	
High grade tankage, ground	
10@11% ammonium	\$ 4.25n
Bone tankage, unground, per ton	30.00@31.00
Hoof meal	3.50@ 3.75n

Dry Rendered Tankage

Per unit	
Hard pressed and expeller unground	
45 to 52% protein (low test)	\$1.25 @1.27½
57 to 62% protein (high test)	1.22½@1.25

Gelatine and Glue Stocks

Per cwt.	
Calf trimmings (limed)	\$1.00*
Hide trimmings (limed)	.90*
Sinew and pizzles (green, salted)	Per ton
Cattle jaws, skulls and knuckles	\$ 40.00n
Pig skin scrapes and trim, per lb.	7@7½

*Denotes ceiling price, f.o.b. shipping point.

Bones and Hoofs

Per ton	
Round shins, heavy	\$65.00@75.00
light	65.00
Flat shins, heavy	60.00@65.00
light	60.00
Blades, buttocks, shoulders & thighs	57.50@60.00
Hoofs, white	55.00@57.50
Hoofs, house run, assorted	35.00@37.50n
Junk bones	30.00@31.00

Animal Hair

Winter coil dried, per ton	\$ 60.00
Summer coil dried, per ton	32.50@35.00
Winter processed, black, lb.	8½@ 9
Winter processed, gray, lb.	8
Cattle switches	4 @ 4%

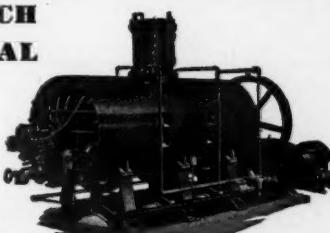
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NEW HIGH ON FATS AND OILS

Domestic production of fats and oils was at a new high level in 1941, the Department of Agriculture reported. However, factory and warehouse stocks were reduced nearly 300 million lbs., or 12 per cent in the year. In view of the high rate of domestic consumption, large purchases for lend-lease shipment, and curtailment of imports, a further reduction in stocks probably will occur in 1942, it was predicted by the government agency.

Prices of fats and oils in January were at or near ceiling levels, the report continued. Some further advance in price is possible, particularly for lard, for which the ceiling price was raised a second time early in February.

FERTILIZER PRICES

BASIS NEW YORK DELIVERY

Ammenities

Ammonium sulphate, bulk, per ton, basis ex-vessel Atlantic ports.....	\$30.00
Blood, dried, 16% per unit.....	5.30
Underground fish scrap, dried 11½% ammonia, 16% B. P. L., f.o.b. fish factory.....	4.75 & 10c
Fish meal, foreign, 11½% ammonia, 10% B. P. L., c.i.f. spot.....	55.00
February shipment.....	55.00
Fish scrap, ammonia, 70% ammonia, A. P. L., f.o.b. fish factories.....	2.75 & 10c
Soda nitrate, per net ton, bulk, ex-vessel Atlantic and Gulf ports.....	30.00
in 200-lb. bags.....	32.40
in 100-lb. bags.....	33.00
Fertilizer tankage, ground, 10% ammonia, 10% B. P. L., bulk.....	4.50 & 10c
Feeding tankage, unground, 10-12% ammonia, 15% B. P. L., bulk.....	5.50 & 10c

Phosphates

Foreign bone meal, steamed, 3 and 50 bags, per ton, c.i.f.	\$37.50
Bone meal, raw, 4½% and 60% in bags, per ton, c.i.f.	37.50
Superphosphate, bulk, f.o.b. Baltimore, per ton, 16% fat.....	10.10

Dry Rendered Tankage

50/55% protein, unground.....	\$1.17½
60% protein, unground.....	1.17½

EASTERN FERTILIZER MARKETS

New York, February 18, 1942

Cracklings are well sold up at \$1.17½ f.o.b. New York and some producers are now quoting \$1.20 per unit. Blood sold at \$5.30 f.o.b. New York. Feeding tankage sold at \$5.50 and 10c f.o.b. New York with the market well sold up. Fertilizer manufacturers are finding it difficult to secure certain chemicals. Bone meal is slow with a limited demand.

VEGETABLE OILS

Crude cotton seed oil, in tanks, f.o.b. Valley points, prompt.....	12%
White deodorized, bbls., f.o.b. Chgo.....	16%
Yellow, deodorized.....	16%
Soap stock, 50% f.f.a., f.o.b. consuming points.....	3½
Soybean oil, in tanks, f.o.b. mills.....	11½
Corn oil, in tanks, f.o.b. mills.....	12%

OLEOMARGARINE

F. O. B. CHICAGO

White domestic vegetable.....	19
White animal fat.....	15½
Water churned pastry.....	17½
Milk churned pastry.....	18½
Vegetable type.....	15

Cottonseed Oil Futures and Crude Oil Hold at Ceilings

COTTONSEED oil futures were inactive but firm at New York during the past week; ceiling price levels were persistently bid and offerings were scanty. There was a little trading in March, May and July at the ceilings, and some switching from nearby to later positions, but the turnover was small and the general position of the market unchanged from that of recent weeks.

The open interest in the market was down to around 476 lots, but appeared to hold at that level, as the longs were content to sit on the sidelines and look on. There were numerous buying orders in the ring, mostly from shorts, and some demand developed from new buyers, apparently convinced that ceiling price levels must be revised upward. It was estimated by ring observers that buying orders were in the market for as many as 400 lots at one time.

The crude situation was unchanged with the market in the South holding at the ceiling. Refined cotton oil was quiet and barely steady, but other oils were firm to strong.

It was reported that an occasional tank of crude changed hands at the ceiling in the South, but sellers were not pressing and ceiling prices were bid most of the time. Buying interest appeared to be restricted. In the Southeast the market was 12½@12¾c, according to location, the Valley, 12¾c and Texas 12½c.

Refiners were asking 15¼@15½c for winter CSO in tanks, but resale oil was available at New York at 14¾c. Sellers were asking 17c in drums, but large interests indicated they would do 16¾c on the latter on bids. Peanut oil sold at 16¾c in tanks and was 17c asked, while drums were held at 17¾c. Corn oil in tanks was 14¾c nominal. Sunflowerseed oil in tanks was 15c asked and in drums was 15½c@15¾c sellers. Soybean oil in tanks was 13¾c and drums 15@15½c.

Shortening prices were unchanged at 17c for regular, but demand was rather slow, and large producers were indicating they would do ¼c lower, or 16¾c on bids.

January cottonseed oil consumption exceeded expectations at slightly over 277,000 bbls., but this was 92,000 bbls. less than in the same month a year earlier. Consumption for the six months ended with January totaled 1,522,000 bbls., compared with 1,830,000 bbls. last season. Visible supply of cottonseed oil on February 1 aggregated 1,989,300 bbls. and was about 410,000 bbls. smaller than in 1941.

COCONUT OIL.—Nominal.

CORN OIL.—Crude oil was 12¾c bid, Chicago basis. Refined corn oil at

New York was called 14¾c nominal.

SOYBEAN OIL.—Sales of a few tanks were reported on the basis of 11¾c, Decatur, with the ceiling bid persistently everywhere. Producers were not anxious sellers at that level and resellers were less in evidence, apparently having been pretty well cleaned up. Refined bean oil was quiet but steady at New York with tanks at 13¾c, sellers, and drums at 15 to 15½c, according to seller.

PALM OIL.—Nigre spot in drums at New York was quoted 9.02c; tanks, ex-ship, 8.25c, and plantation tanks, ex-ship, 8.32c.

PALM KERNEL OIL.—Nominal.

PEANUT OIL.—Offerings continued scanty and ceiling price of 13c was persistently bid for Southeast crude. Demand for refined oil was good again this week and offerings were a little freer. An estimated ten tanks or more sold at 16¾c.

Futures market transactions for the week ended Feb. 19, 1942, at New York:

FRIDAY, FEBRUARY 13, 1942

	—Range—			—Closing—	
	Sales	High	Low	Bid	Asked
February	3	13.95	13.95	13.92	nom
March	3	13.95	13.95	13.95	bid
April	1	13.95	13.95	13.95	nom
May	16	13.95	13.95	13.98	bid
June	1	13.95	13.95	13.98	nom
July	1	13.98	13.98	13.98	bid
August	16	13.98	13.98	13.98	nom
September	16	13.98	13.98	13.98	nom

Sales, 36 contracts.

SATURDAY, FEBRUARY 14, 1942

February	2	13.95	13.95	13.92	nom
March	2	13.95	13.95	13.95	bid
April	1	13.95	13.95	13.98	bid
May	1	13.95	13.95	13.98	nom
June	1	13.95	13.95	13.98	nom
July	2	13.95	13.95	13.98	bid
August	1	13.95	13.95	13.98	nom
September	1	13.95	13.95	13.98	bid

Sales, 4 contracts.

MONDAY, FEBRUARY 16, 1942

March	1	13.95	13.95	13.95	bid
April	1	13.95	13.95	13.95	nom
May	1	13.95	13.95	13.98	bid
June	1	13.95	13.95	13.98	nom
July	1	13.95	13.95	13.98	bid
August	1	13.95	13.95	13.98	nom
September	1	13.95	13.95	13.98	bid
October	1	13.95	13.95	13.98	bid

Sales, 2 contracts.

TUESDAY, FEBRUARY 17, 1942

March	2	13.95	13.95	13.95	bid
April	2	13.98	13.98	13.95	nom
May	2	13.98	13.98	13.98	bid
June	1	13.98	13.98	13.98	nom
July	1	13.98	13.98	13.98	bid
August	1	13.98	13.98	13.98	nom
September	1	13.98	13.98	13.98	bid
October	1	13.98	13.98	13.98	bid

Sales, 5 contracts.

WEDNESDAY, FEBRUARY 18, 1942

March	2	13.95	13.95	13.95	bid
April	1	13.95	13.95	13.95	nom
May	1	13.95	13.95	13.98	bid
June	1	13.95	13.95	13.98	nom
July	1	13.95	13.95	13.98	bid
August	1	13.95	13.95	13.98	nom
September	1	13.95	13.95	13.98	bid
October	1	13.95	13.95	13.98	bid

Sales, 3 contracts.

THURSDAY, FEBRUARY 19, 1942

March	1	13.95	13.95	13.95	bid
May	1	13.95	13.95	13.98	bid
July	1	13.95	13.95	13.98	bid
September	1	13.95	13.95	13.98	bid

Sales, 2 contracts.

(See later markets on page 32.)

Packers Indicted for Hog Buying Practices

Two meat packers, a stockyards company, a livestock exchange, two marketing committees and six packing company officials were indicted this week by a federal grand jury at Kansas City, Mo., on charges of conspiring to violate the Sherman anti-trust law by suppression of competition in the sale of hogs on the St. Joseph market and the prevention of free and competitive bidding and buying.

The further effect of the alleged conspiracy, it is charged, was to arbitrarily depress, stabilize, "and otherwise control and fix noncompetitive prices on hogs sold on the market."

Representatives of Swift & Company and Armour and Company, the two packing firms indicted, were accused of inducing two other national packers, Cudahy Packing Co., and Wilson & Co., to discontinue the country purchase of hogs within the St. Joseph trade territory.

Indicted, in addition to Armour and Swift, were:

St. Joseph Stockyards Co., St. Joseph Livestock Exchange, St. Joseph joint marketing improvement committee, hog yards sub-committee of the St. Joseph joint marketing improvement committee, and six officials of Swift and Armour.

WPB and OPA Orders

Only a few orders affecting the meat packing industry were issued by WPB and OPA this week. Those of most direct interest were:

SHEARINGS.—The War Production Board has taken another step to increase the supply of shearlings for the armed services. Its order (M-94) supersedes a telegraphic order of December 12, 1941, freezing shearlings in this country. It makes permanent the provision in the previous order making available for military requirements the entire shearling supply, but it releases for civilian use shearlings previously frozen which do not meet military specifications as defined in the order. The order also prohibits pulling wool from any freshly flayed or salted sheepskin when the wool is 2" or less in length and has a Bradford wool count of 48 and up.

COAL AND COKE.—Large users of coal and coke, especially utilities and industrial users, are being urged by the division of industry operations to build up their inventories as much as possible to avoid the danger of having to suspend operations in case of an emergency. General Inventory Order M-97, issued last week revokes the inventory restrictions imposed by Priorities Regulation No. 1 insofar as they apply to coal and coke. The order will enable large users to take advantage of the fact that there is at present considerable excess production of coal and coke, and transportation available for

distribution of these materials. Inventory restrictions are relaxed for coal and coke only. Inventories of all other materials must be kept to a practicable working minimum in accordance with the terms of Priorities Regulation No. 1.

Fruit-Vegetable Canners May Pack Meat Products

WASHINGTON.—Plants of fruit and vegetable canners will be given limited BAI approval to can meat products for the Army, Navy and other government agencies during otherwise slack seasons. To obtain BAI permission to carry on such work, the fruit and vegetable canners must meet plant and sanitation standards set by the agency, although these will probably not be as stringent as are prescribed for regular meat packers and canners since the scope of permitted operations will be more limited.

It is hoped that this "doubling up" will make it possible to utilize existing cannery facilities more fully, and will obviate the necessity of greater expansion in meat canning plants.

TO STUDY ANEMIA PROBLEM

Anemic expectant mothers may rebuild their health through proper diet instead of dosing themselves with pills, according to Dr. Ruth M. Leverton, nutritionist at the University of Nebraska. Belief that popular fear of high protein diet may lead to nutritional anemia in expectant and nursing mothers has led her to engage in special research on the problem. Under a fellowship granted by Swift & Company, she will undertake to study anemia resulting from faulty diet. The work will be conducted in laboratories of the university and the agricultural experiment station at Lincoln.



NEW CUDAHY CANNED PRODUCT

Just introduced on the market by the Cudahy Packing Co., Meatchee, a combination of chopped pork and process cheese, has found a favorable reception. Packed in a 12-oz. square can, it is suggested for regular or special meals.



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HIDES AND SKINS

All Chicago packers move week's hide production at ceiling prices—Few packer calf and kipskins sold at maximums—New shearing order released by War Production Board

Chicago

PACKER HIDES.—The packer hide market continues in the same firm position as previously, and all four of the big packers moved the equivalent of about a week's production of hides this week at ceiling prices for all descriptions, as quoted in the adjoining table. Trade estimates of the total movement vary from 80,000 to 100,000 hides, actual details as to quantities not being disclosed. There is a good demand for anything available at the ceiling prices, even for the present quality of late winter hides, with the prospect that the demand may broaden in the usual seasonal way as the quality improves during the late Spring.

Coinciding with this demand for hides is the fact, disclosed by the annual livestock census of the Department of Agriculture, that the total number of cattle and calves on farms on January 1st set a new all-time record, at 74,607,000 head, an increase of 3,146,000 over the total of 71,461,000 as of January 1st, 1941. Details of the census

figures are printed elsewhere in this issue.

The preliminary estimate by the Tanners' Council places shoe production for January at about 38,500,000 pairs, a slight increase of nine-tenths of one percent over December, and 4.6 percent over the Jan. 1941 output of 36,803,000 pairs.

Open interest in hide futures at the close Feb. 18th consisted of 63 lots in March and 17 in June, or a total of 80 lots. Certificated stocks in Exchange warehouses as of Feb. 13th totalled 31,563 hides.

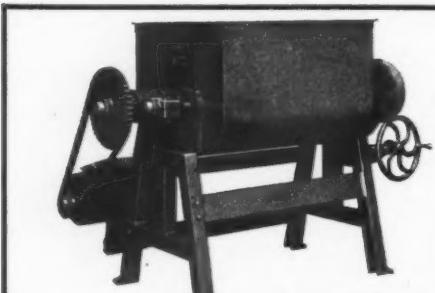
OUTSIDE SMALL PACKER.—The outside small packer market is reported to be pretty closely sold up through February now, with a good demand at the ceiling price of 15½c, selected, trimmed, for native steers and cows, f.o.b. shipping points, and 14½c for branded; hides sold on a flat basis quotable ¼c less. There has been no news so far from the various meetings called recently to discuss the possibility of changing ceilings to provide for the sale of outside small packer and country hides only on a flat basis.

PACIFIC COAST.—The Pacific Coast market is reported to be fairly closely sold up to end of Jan., following the trading about two weeks back at ceiling

price of 13½c flat, trimmed, for steers and cows, f.o.b. shipping points.

FOREIGN WET SALTED HIDES.—Despite the Lenten holidays in South American, a fairly sizeable trade is reported to have passed in that market, although there seems to be considerably less disposition now to disclose details of trading. At the last week-end a total of around 35,000 hides were reported to have sold, and around 50,000 more about mid-week, all reported as moving at steady prices. Some Montevideo heavy average steers are reported to have sold equal to 16½c, c.i.f. New York, but not confirmed. Argentine frigorifico standard steers sold steady at 106 pesos, equal to about 16½@ 16½c, c.i.f. New York; reject steers at 100 pesos or about 15½c; various other descriptions including light steers, reject light steers, cows and reject cows, sold at prices steady with those quoted recently.

COUNTRY HIDES.—Conditions are about unchanged in the country market, with no news as yet from recent proposals to change the sale of country hides to a flat basis. Buyers are reluctant to pay the top of 14c flat, untrimmed, or 15c flat trimmed, for the heavy average all-weights, around 50 lb. or better, but appear to be unable to buy anything cheaper. Most of the trading continues on an all-weight basis, and dealers expect to have very little accumulation in their hands when the heavy killing season is over. Tanner



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selections are quoted mostly in a nominal way. Trimmed heavy steers and cows are nominal at 13½@13¾c, flat; trimmed buff weights at 15c, flat; trimmed extremes at 15c flat, or 15½c selected; bulls quoted 9½@10c, trimmed; glues 11½@12c, flat; all-weight branded around 13½c, flat.

CALFSKINS.—Another packer this week distributed Jan. production of calfskins at ceiling prices, 27c for heavies 9½/15 lb., and 23¾c for lights under 9½ lb. Two larger producers had sold Jan. calf earlier, and one small Jan. production has not yet been reported moving, although there is a demand considerably in excess of supply.

The market on Chgo. city calfskins continues quotable at ceiling prices, 20½c for 8/10 lb. and 23c for 10/15 lb.; there is a good demand this basis and collectors move skins quietly as available. Outside cities are salable at same prices. Straight country calf are salable at 16c flat for 10 lb. and down, and 18c flat for 10/15 lb., f.o.b. shipping points. Chicago city light calf and deacons are unchanged at \$1.43, selected.

KIPSKINS.—Another packer moved small Jan. production of kipskins this week at maximum prices, 20c for 15-30 lb. natives and 17½c for brands. Two other packers had moved or booked their Jan. kips earlier, and one small production apparently is still held.

Collectors report a good demand for Chgo. city kipskins at maximum of 18c for 15-30 lb. natives, and 17c for brands.

Country kips are salable at 16c, flat, f.o.b. shipping points.

The market continues quotable at \$1.10 flat for packer regular slunks, and 55c for hairless, last trading prices.

HORSE HIDES.—The market is steady on horsehides; while trade is called slow in some quarters, there is enough business to maintain recently quoted prices. City renderers, with manes and tails, are usually quoted \$7.25@7.35 for usual run of offerings, selected, f.o.b. nearby points, with \$7.50 reported on choice lots. Trimmed renderers quoted \$6.85@7.00, del'd Chgo. Mixed city and country lots \$6.35@6.50, Chgo.

SHEEPSKINS.—Packers have just received a copy of the new WPB Order M-94, entitled "To Conserve the Supply and Direct the Distribution of Shearlings," released Feb. 18th, and are still studying the details of the order. The telegraphic order sent tanners on Dec. 12th, 1941, has been revoked. Effective immediately, no wool is to be pulled from any skins when wool is of such length and type as to constitute a wool growth of 2 in. or less, having a Bradford wool count of 48 and up; these are to be reserved as shearlings and are not to be processed except for the filling of defense orders. Tanners are enjoined from finishing any shearlings, other than black or black mottled, or those that will finish with less than ¼ in. wool pile, in any colors other than those acceptable on Government contract

work. Apparently tanners may apply to have released from the order moutons processed before Dec. 12th, 1941, or processed shearlings which are defective as to wool or leather and cannot be used for defense orders. Meantime, packer shearlings are quoted steady, No. 1's at \$1.75@1.80, No. 2's at \$1.25@1.30, and No. 3's at 80@85c; one house sold a small car this week at top figures. Pickled skins were reported to have sold at \$8.25 per doz. for current production. Mid-west packer wool pelts are quoted \$3.55@3.65 per cwt. liveweight basis, some talking \$3.75. Outside small packer pelts \$2.60@2.90 each.

New York

PACKER HIDES.—There has been no activity reported so far in Feb. hides in the New York market, although there is the possibility of some packers moving a car or two quietly as packs are closed. Ceiling prices are obtainable, native steers at 15½c, butt brands 14½c, Colorados 14c, cows 15½c, and native bulls 12c.

CALFSKINS.—The New York calf-skin market is unchanged, with ceiling prices obtainable for all grades, and both packers and collectors keeping sold up. Collector 3-4's are quotable at \$1.15, 4-5's \$1.30, 5-7's \$1.65, 7-9's \$2.60, 9-12's \$3.55, 12/17 kips \$3.95, and 17 lb. up \$4.35. Packer 3-4's are salable at \$1.25, 4-5's \$1.40, 5-7's \$1.80, 7-9's \$2.80, 9-12's \$3.80, 12/17 kips \$4.20, and 17 lb. up, \$4.60.

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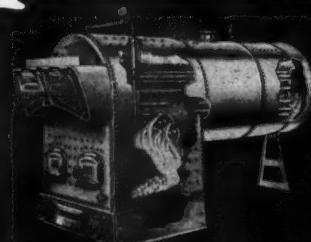
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WEEK'S CLOSING MARKETS

CHICAGO HIDE QUOTATIONS

Quotations on hides at Chicago for the week ended Feb. 20, 1942:

	PACKER HIDES		
	Week ended Feb. 20	Prev. week	Cor. week, 1941
Hvy. nat. stra.	@15½	@15½	@12
Hvy. Tex. stra.	@14½	@14½	@12
Hvy. butt brnd'd stra.	@14½	@14½	@12
Hvy. Col. stra.	@14	@14	@11½
Ex-light Tex. stra.	@15	@15	@12
Brnd'd cows ..	@14½	@14½	@11½
Hvy. nat. cows ..	@15½	@15½	@11½
Lt. nat. cows ..	@15½	@15½	12 @ 12½
Nat. bulls ..	@12	@12	8½
Brnd'd bulls ..	@11	@11	7½
Calfskins	23½@27	23½@27	22½@27
Kips, nat.	@20	@20	@19
Kips, brnd'd	@17½	@17½	14 @ 14½
Slunks, reg.	@1.10	@1.10	@85
Slunks, hrls.	@55	@55	@50

CITY AND OUTSIDE SMALL PACKERS

	Nat. all-wts.	@15½	@15½	11 @ 11½
Branded	@14½	@14½	10½@11	
Nat. bulls	@12	@12	7½ @ 7½	
Brnd'd bulls	@11	@11	6½ @ 7	
Calfskins	20½@23	20½@23	20 @ 22½	
Kips	@18	@18	17 @ 17½	
Slunks, reg.	@1.10	@1.10	@75	
Slunks, hrls.	@55	@55	@50	

All packer and small packer hides and skins quoted on trimmed, selected basis, except all slunks quoted flat.

COUNTRY HIDES

Hvy. steers	13½@13½	13½@13½	8 @ 8½
Hvy. cows	13½@13½	13½@13½	8 @ 8½
Extremes	@15	@15	10½@11
Bulls	@15	@15	11½@12
Bulls	9½@10	9½@10	5½@6
Calfskins	16 @ 18	16 @ 18	14½@15
Kipskins	@16	@16	@13
Horsehides	6.35@7.50	6.35@7.50	5.50@6.20

All country hides and skins quoted on flat basis.

SHEEPSKINS

Pkr. shearlgs.	1.75@1.80	1.75@1.80	1.65@1.70
Dry pelts	23½@24	24 @24½	21 @ 22

CHICAGO HIDE MOVEMENT

Receipts of hides at Chicago for the week ended February 14, 1942, were 7,699,000 lbs.; previous week 5,081,000 lbs.; same week last year 5,116,000 lbs.; Jan. 1 to date, 38,062,000 lbs.; corresponding period in 1941, 35,961,000 lbs.

Shipment of hides from Chicago for week ended February 14, 1942, were 5,456,000 lbs.; previous week 4,581,000 lbs.; same week last year, 5,867,000 lbs.; Jan. 1 to date, 39,205,000 lbs.; same period last year, 33,785,000 lbs.

STOCKERS AND FEEDERS

Stocker and feeder shipments received in seven Corn Belt states¹ in January, 1942:

	Cattle and Calves	
	Jan.	Jan.
	1942	1941
Stockyards	72,298	75,133
Direct	16,762	28,910
Total, January	89,060	104,043
Total, 1941	1,890,475	2,031,757
Stockyards	58,747	41,406
Direct	57,544	77,900
Total, January	116,291	119,306
Total, 1941	3,203,166	3,330,112

¹Data in this report are obtained from offices of state veterinarians. Under "Public Stockyards" are included stockers and feeders which were bought at stockyards markets. Under "Directs" are included stockers and feeders coming from other states from points other than public stockyards, some of which are inspected at public stockyards while stopping for feed, water and rest en route.

FRIDAY'S CLOSING

Provisions

Lard futures displayed a firm under-tone as hog prices staged sharp recovery on smaller marketings. The hog top at Chicago was \$13.10 and prices were 25 to 40c higher. Provisions were mostly unchanged. Demand for green joints was light, but fair trading was seen on dry salt bellies at steady rates.

Cottonseed Oil

Valley and Southeast crude, 12½c bid; Texas, 12½c bid at common points.

Quotations on New York bleachable cottonseed oil, Friday close, were: Mar. 13.95 b; May 13.98 b; July 13.98 b; Sept. 13.98 b; 12 sales.

PRODUCE IN COLD STORAGE

Cold storage holdings of butter, cheese and eggs on hand February 1, 1942:

	Feb. 1,	Feb. 1,	Feb. 1,
	1942	1941	5-yr. av.
	M lbs.	M lbs.	M lbs.
Butter, creamy	88,295	29,715	48,841
Butter, packing stock	12	7	93
Cheese, American	134,375	109,820	88,884
Cheese, Swiss	6,569	5,108	4,969
Cheese, brick & Munster	1,478	545	708
Cheese, Limburger	450	560	871
Cheese, all other varieties	18,813	9,275	8,987
Eggs, shell, cases	331	297	255
Eggs, frozen	74,324	53,828	59,025
Eggs, frozen, case equivalent	1,982	1,435	1,574
Eggs, case equivalent shell & frozen	2,313	1,732	1,829

Supplementing February 1 cold storage release DPMA held Feb. 1, 5,916,000 pounds creamy butter. FSCC and SMA held 13,980 pounds creamy butter, 192,521 cases shell eggs, 13,946,406 pounds frozen eggs, 14,776,221 pounds of cheese. U.S. Commercial Stocks creamy butter Feb. 1, 1942 77,275; Feb. 1, 1941 58,820; 5-yr average 29,903,000. U.S. Commercial Stocks shell eggs Feb. 1, 1942 138,000; Feb. 1, 1941 272,000. U.S. Commercial Stocks frozen eggs Feb. 1, 1942 60,378,000. U.S. Commercial Stocks American Cheese Feb. 1, 1942 119,599,000.

FLASHES ON SUPPLIERS

POMONA PUMP CO.—Pomona Pump Co., widely known as manufacturers of vertical pumps, announces the purchase of the Westco Pump division of Micro-Westco, Inc., Bettendorf, Ia. The business will be operated as Pomona Pump Co., Westco division, 2621 Locust St., St. Louis, Mo., and manufacture continued from the St. Louis plant of Pomona Pump Co. Management and key personnel of Westco will be transferred to St. Louis. Addition of the Westco turbine type pump for industrial and marine application, as well as boiler feed and condensation units, side suction centrifugals, complete water systems, line and cellar drainers, rounds out the line of Pomona deep well, low lift, industrial, marine and municipal pumps.

LOSS OF MOTOR TAX STAMP

Reports of lost or stolen federal motor vehicle use tax stamps have caused the U. S. Bureau of Internal Revenue to establish procedure to relieve motor vehicle owners of purchasing a second stamp if proof of original payment of the tax can be established. It is important that motor vehicle owners fill out and mail to the Bureau of Internal Revenue the postal card supplied at the time use tax stamp is purchased. This will help establish proof of payment if stamp is lost or stolen.

Owners applying for relief will be required to submit an affidavit to the district collector of internal revenue, stating the date on which the stamp was purchased, location of the post office or collector's office at which purchased, amount paid for stamp, make, model and serial number of vehicle from which stamp was lost or stolen together with a concise statement of the facts and circumstances surrounding the theft or loss. If the information is satisfactory to the collector, a statement will be given the owner which will be accepted by federal officers as evidence that use tax has been paid on the vehicle described for the period indicated, but lost or stolen stamps will not be replaced free.

SUGAR TROUBLES

Packers in some localities report that they are having difficulty in obtaining any sugar at all, let alone the 80 per cent of their February, 1941 consumption allotted the industry under the WPB general preference order. One processor was forced to buy this curing ingredient in 2-lb. boxes in order to keep going. It is believed that the situation will be cleared up when wholesalers' and distributors' stocks are adjusted to the rationing program.

Meanwhile, there are reports from Washington that the meat packing industry may be given more sugar in view of the greater volume of product which must be cured in 1942 compared with the amount handled in the 1941 base period.

FSCC PURCHASES

Purchases made by the Federal Surplus Commodities Corp. on February 20, consisted of 10,396,032 lbs. of lard, 1,440,000 lbs. of cured pork products, 7,631,000 lbs. of canned pork, 97,750 100-yd. bundles of hog casings and 2,250 pieces of beef bungs.

The FSCC has invited packers to submit offers to store, smoke and pack cured hams. The smoked hams are for domestic use. Cured hams to be processed will be delivered to successful offerers in accordance with terms of Offer Form FSC 1679. Offers must be in the hands of the FSCC by 11 a.m., EWT, February 23, and will be subject to acceptance by February 25.

STAMP

A federal stamp has been issued to re-purchase original established. Article owner, Bureau of Standard stamp is purchased proof stolen.

It will be sent to the revenue, stamp was lost office purchased, like, model from which either with facts and the theft or satisfactory it will be accepted. One that use vehicle de- d, but lost replaced

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Federal Survey February 20, 1942. of lard, products, New York, 97,750 and 2,250

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Control of Air Diffusion

(Continued from page 11.)

down through the product. The turbulent motion that is set up by the opposing forces created by the air inlet continues as the diffused air flows down through the product. This insures the complete permeation of all spaces throughout the product and eliminates stratification and dead air spots.

Another type of air supply device is the one employing the pressure principle of discharge. This is contrary to the expansion principle employed by the device described above. A device which utilizes the pressure principle discharges the air in a single horizontal plane without the creation of counter currents. This is the principle employed by the plaque. Air traveling in a single plane does not readily mix with the room air but continues to travel in that plane in an undisturbed stream until the energy of velocity is expended or has been overcome by obstructions. There is no tendency toward diffusion.

Air Diffusion Defined

Diffusion as used herein means the intermingling of the molecules of the incoming air with the molecules of the room air. This is possible only when the inlet device creates the turbulence described above. This turbulence is not created by the device utilizing the pressure method of discharge. The energy of velocity of the incoming stream of air discharged from the device utilizing the pressure principle, creates motion in a portion of the room air that is adjacent to the incoming stream. This is known as secondary air motion.

These two streams follow along adjacent to each other but they do not mix appreciably. For two streams of air, traveling in the same direction, mix very slowly; the energy of velocity of the incoming stream is not readily overcome, and diffusion of the incoming air with the room air is not affected. When the device is so constructed as to discharge air in two or more parallel and contiguous planes, the natural tendency is for these planes to adhere to each other and to travel as a single plane, and the results are the same as with a single plane discharge. There is still no diffusion.

To prevent this and to effect the complete diffusion of the incoming air with the room air, the incoming air must be discharged from the diffusing device in a multiplicity of planes traveling in divergent directions and radiating hemispherically around the device. The device that is so constructed as to do this must employ the expansion principle of discharge and must create the counter currents that are essential for complete diffusion of the incoming air with the room air, within the space available for such diffusion.

The number of planes into which this incoming air must be divided in order to effect complete diffusion is largely determined by the volume of air the device is required to handle. The number of diffusers required in a room will



AIR DIFFUSERS SIMPLIFY COOLER DESIGN AND OPERATION

The utility of unit coolers has been limited to some degree by an inability to control air motion within close limits under certain conditions. Development of modern air diffusion devices has streamlined cooler design and enabled packers to control air motion and temperatures within close limits in all parts of a room. This results in simplified cooler operation, less shrink and better preservation of products and carcasses.

be determined by the area of diffusion allotted to each diffuser, and this area is determined by the physical conditions existing within the diffusion space.

The function of diffusion must be performed substantially before the diffused air reaches the product and, therefore, must be confined to the space between the ceiling of the room and the top of the stored product. The diffuser utilizing the expansion principle discharges air hemispherically. The pattern of this diffusion is an inverted segment of a sphere.

The altitude of this segment must not be greater than the distance from the top of the product to the upper plane of discharge which forms the base of the segment. The radius of the base is usually greater than the altitude of the segment and the relation of these dimensions may be varied somewhat, but in no instance shall this relationship be such as to require a change of the angles of discharge established as required for proper operation of diffuser.

When the incoming air is discharged in the foregoing manner a blanket of diffused air is spread above the product, filling the space between the product and the ceiling of the room. The equalization of conditions throughout the stored product is dependent upon the speed with which this blanket of diffused air is moved down through the product. This downward motion must be rapid enough to avoid stratification but not so rapid as to recreate drafts. This is regulated by the rate of air change in the room. The diffused air cannot move down through the product except as the

air along floor of room is removed.

The rate of air change in a refrigerated space is of vital importance and, by virtue of the method of diffusion outlined above, may be relatively very high. A high rate of air change is usually desirable because:

- 1.—It increases capacity of coil.
- 2.—It reduces to a minimum the condensation of the moisture in the air and largely prevents the formation of frost and ice on the coils.
- 3.—It more closely equalizes temperature and humidity throughout the room.

- 4.—It eliminates dead air spots.
- In short, the control of air motion and distribution within a refrigerated space makes feasible and desirable the use of the unit cooler, the manifold superior features of which are well recognized.

The control of air motion and distribution within refrigerated spaces is of inestimable value in that it substantially facilitates the longer preservation of products, appreciably reduces waste and conserves valuable space, all of which contribute to increased profits for the operator and improved service to the consumer.

In conclusion, it would seem that the control of air motion and distribution in refrigerated spaces is a subject worthy of careful consideration by the refrigerating engineer, and one which affords him an opportunity to render an important service both to the user of refrigerated spaces and to the consumer of his products.

Canning Research

(Continued from page 12.)

Temperatures at all of the thermocouples converged to the indicated processing temperature and immediately diverged when the air was again turned on.

Processing in water involves the use of special retort control devices for maintaining proper temperature and pressure and provision to insure even heat distribution in the retort. Air, entering through the steam spreader, is the most commonly used method of agitating the water. Tests were made in a retort loaded with 6-lb. cans tightly stacked, using water as the heating medium, to study the effect of air agitation on heat distribution. In one run the water was not agitated. Under these conditions there existed a temperature spread ranging as high as 5 degs. between systematically located thermocouples. When compressed air was piped into the steam line at a rate of 2 cu. ft. per minute, heat distribution tests showed only a 2-deg. spread in temperature throughout the retort. This would indicate that agitation is desirable in water processing 6-lb. cans. On the other hand, tests have shown that uniform heating is obtained in processing 2½-lb. round cans without the use of air agitation. The natural convection currents are more free to circulate around the round cans than the rectangular cans.

Use of Injectors

Some packers have installed injectors in the steam lines, to draw air from the headspace in the retort and mix it with the steam entering the bottom of the retort. The velocity of the steam through the injector determines the amount of air which will be circulated. Tests made by installing a flow meter in the line from the retort headspace to the injector showed that under the conditions of retort operation, there was no flow of air from the retort to the injector. Actually, the steam backed up through the injector to the check valve in the line.

In order to bring the retort up to temperature in a reasonable length of time, the nozzle of the injector has to be large enough so that it will not appreciably cut down the flow of steam to the retort. In fulfilling this requirement, the velocity of steam through the injector was not sufficient to promote circulation of the air in the retort. It seems unlikely that an injector will pass enough steam to permit a reasonable come-up time and still function when the steam valve is throttled during processing.

HEAT PENETRATION.—While it is interesting to know what is happening on the outside of the cans, it is more important to know what conditions obtain inside the cans. At the same time that temperature distribution in the retort was studied, the temperatures inside those cans around which the special thermocouples were wrapped were

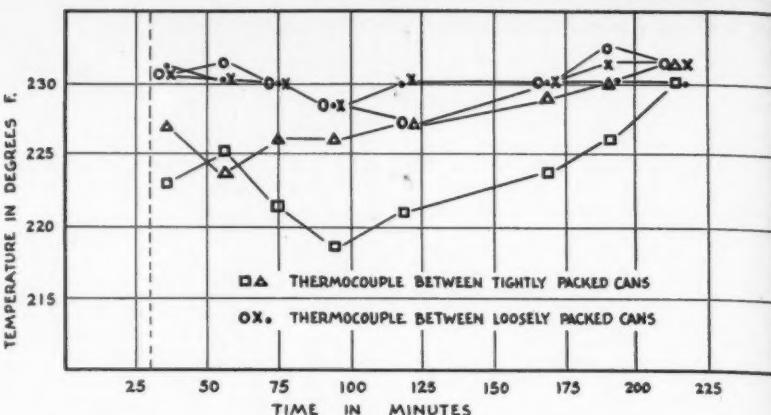


FIG. 1.—LAG IN TEMPERATURES BETWEEN TIGHTLY PACKED 6-LB. CANS

Diagram shows effect of stacking on apparent heat distribution in processing of 6-lb. pork luncheon meat in water at 230 degs. F. Retort is of horizontal type.

also recorded. The slowest heating part of the can, the geometric center, was the point at which all heat penetration measurements were made.

Temperatures at the center of the 6-lb. rectangular cans at the end of the cook varied from 211 degs. F. to 219 degs. F., and the tightly stacked cans usually showed lower temperatures than those loosely stacked. The process was much more efficient when the cans were loosely stacked, from 10 to 20 minutes longer processing being required for tightly stacked cans to produce the same sterilizing effect. When 2½-lb. round cans were used, the different methods of processing and stacking resulted in no appreciable differences in temperatures of processing value.

YIELD.—The amount of shrinkage which takes place in the can during processing of sterile pork luncheon meat is of major concern to all packers of the product. The severity of the process has been claimed by some packers as the chief cause of shrinkage. Others believe that the present process could be substantially increased without increasing the amount of shrink. There can be little doubt that the heat treatment of the "sterile" process renders out more

juice and fat than do the cooks for the refrigerated product.

However, it has been our experience that variations in processing times and temperatures within commercial limits do not significantly affect the amount of shrinkage in the sterile type product. For instance, in one experimental pack in which a process of 3½ hours at 235 degs. F. was used for 2½-lb. pork luncheon meat, satisfactory yields were obtained. This process has approximately 15 times the lethal value of the A.M.I. suggested process for FSCC luncheon meat of 160 minutes at 225 degs. F.

Shrinkage Data

Earlier mention was made of the relationship between yield and added or superimposed air pressure during processing. Tests were made to study this and the yield data are recorded in Table I. All of the processes listed in Table I have the same sterilizing value, the differences in processing times used being due to differences in the come-up periods. The water processes having the longer come-up times require shorter processing times at retort temperature.

The data obtained indicate that there is no significant difference in shrinkage in 6-lb. cans when processed in steam or in water with superimposed air pressure, the processing methods most commonly used. As would be expected, the yield in the rigid round cans was not affected by the type of process. Of particular note was the large can-to-can variation—as high as 13 per cent—in yield in cans from the same batch of meat processed in the same retort load.

When all other conditions are equal, as limited by the extent to which experimental control can make them so in studying problems of this type, it is known that one batch of meat coming from the curing rooms may be processed and have appreciably greater or less yield than a batch immediately following. The answer to satisfactory yield appears to be in the quality, selection and preparation of the meat before it reaches the canning room.

TABLE I—YIELD IN PORK LUNCHEON MEAT GIVEN BACTERIOLOGICALLY EQUIVALENT PROCESSES*

	—Per cent of Yield—	6-lb. can	2½-lb. can
Steam, 7 lbs./sq. in.			
95.0		90.9	
93.2		92.7	
92.4		92.2	
95.2		91.6	
86.5		92.6	
84.9		80.5	
Average	91.2	91.6
Water at 10 lbs./sq. in. by use of superimposed air			
95.4		83.5	
96.9		93.4	
88.7		91.2	
85.6		92.9	
96.8		86.5	
98.7		94.3	
Average	95.7	91.9

* Processes used were steam for 190 min. at 230 degs. F. and 160 min. at 230 degs. F.; water and air at 180 min. at 230 degs. F. and 150 min. at 230 degs. F.

Defense Savings Pay-Roll Allotment Plan

How company heads can help their country, their employees, and themselves

voluntary pay-roll allotment plan

helps workers provide for the future
helps build future buying power
helps defend America today

This is no charity plea. It is a sound business proposition that vitally concerns the present and future welfare of your company, your employees, and yourself.

During the post-war period of readjustment, you may be faced with the unpleasant necessity of turning employees out into a confused and cheerless world. But you, as an employer, can do something now to help shape the destinies of your people. Scores of business heads have adopted the Voluntary Pay-roll Allotment Plan as a simple and easy way for every worker in the land to start a systematic and continuous Defense Bond savings program.

Many benefits . . . present and future. It is more than a sensible step toward reducing the ranks of the post-war needy. It will help spread financial participation in National Defense among all of America's wage earners.

The widespread use of this plan will materially retard inflation. It will "store" part of our pyramiding national income that would otherwise be spent as fast as it's earned, increasing the demand for our diminishing supply of consumer goods.

And don't overlook the immediate benefit . . . money for defense materials, quickly, continuously, willingly.

Let's do it the American way! America's talent for working out emergency problems, democratically, is being tested today. As always, we will work it out, without pressure or coercion . . . in that old American way; each businessman strengthening his own house; not waiting for his neighbor to do it. That custom has, throughout history, enabled America to get things done of its own free will.

In emergencies, America doesn't do things "hit-or-miss." We would get there eventually if we just left it to everybody's whim to buy Defense Bonds when they thought of it. But we're a nation of businessmen who understand that the way to get a thing done is to systematize the operation. That is why so many employers are getting back of this Voluntary Savings Plan.

Like most efficient systems, it is amazingly simple. All you have to do is offer your employees the convenience of having a fixed sum allotted, from each pay envelope, to the purchase of Defense Bonds. The employer holds these funds in a separate bank account, and delivers a Bond to the employee each time his allotments accumulate to a sufficient amount.

Each employee who chooses to start this savings plan decides for himself the denomination of the Bonds to be purchased and the amount to be allotted from his wages each pay day.

How big does a company have to be? From three employees on up. Size has nothing to do with it. It works equally well in stores, schools, publishing houses, factories, or banks. This whole idea of pay-roll allotment has been evolved by businessmen in cooperation with the Treasury Department. Each organization adopts its own simple, efficient application of the idea in accordance with the needs of its own set-up.

No chore at all. The system is so simple that A. T. & T. uses exactly the same easy card system that is being used by hundreds of companies having fewer than 25 employees! It is simple enough to be handled by a check-mark on a card each pay day.

Plenty of help available. Although this is your plan when you put it into effect, the Treasury Department is ready and willing to give you all kinds of help. Local civilian committees in 48 States are set up to have experienced men work with you just as much as you want them to, and no more.

Truly, about all you have to do is to indicate your willingness to get your organization started. We will supply most of the necessary material, and no end of help.

The first step is to take a closer look. Sending in the coupon in no way obligates you to install the Plan. It will simply give you a chance to scrutinize the available material and see what other companies are already doing. It will bring you samples of literature explaining the benefits to employees and describing the various denominations of Defense Savings Bonds that can be purchased through the Plan.

Sending the coupon does nothing more than signify that you are anxious to do something to help keep your people off relief when defense production sloughs off; something to enable all wage earners to participate in financing Defense; something to provide tomorrow's buying power for your products; something to get money right now for guns and tanks and planes and ships.



FREE - NO OBLIGATION

Treasury Department, Section A,
709 Twelfth St. NW., Washington, D. C.

Please send me the free kit of material being used by companies that have installed the Voluntary Defense Savings Pay-Roll Allotment Plan.

Name _____

Position _____

Company _____

Address _____

LIVESTOCK MARKETS

Weekly Review

Meat Animal Numbers to New Peak on Jan. 1

(Continued from page 16.)

on farms made a very sharp increase during 1941 and on January 1, the total of \$6,590,535,000 was up 31 per cent from a year earlier and was the largest since 1920. In the case of cattle, sheep and hogs, numbers were up and values per head were also up; with horses, numbers were down and the value per head was down; for mules the number was down and the value per head was about the same. Both chickens and turkeys were worth more per bird on January 1, this year than last and the total values of both were sharply higher.

The tendency to increase the number of meat animals and poultry was general over the entire country. Cattle numbers were up in all regions and in all but seven states; hogs were up in all but 18 states, and in all regions except the north and south Atlantic; stock sheep were up in all but 19 states and in all regions except the south Atlantic. Chicken numbers were up in all but one state and turkeys in about half the states. On the other hand, the number of horses was down in all but 14 states and of mules in all but 16 states.

HOG WEIGHTS AND COSTS

Average costs of barrows and gilts and sows made further gains in January over the closing month of last year and were sharply above the corresponding month of a year earlier, reports from the six leading markets (Chicago, Kansas City, Omaha, St. Louis National Stock Yards, St. Joseph and St. Paul) revealed recently. Costs on barrows and gilts ranged from \$4.37 to \$4.53 per cwt. higher than for the same month of last year, while gains compared with December, 1941, ranged from \$1.30 to \$1.63 per cwt.

The advance in the cost of sows was similar to that made on barrows and gilts, with the difference ranging from \$4.12 to \$4.62 per cwt. compared with a year ago, while compared with a month earlier the costs were from \$1.18 to \$1.84 higher. The sharpest cost differential over a year ago on sows was at Chicago and the smallest at Kansas City. St. Louis reported the greatest increase in cost of barrows and gilts from a year earlier while Kansas City had the smallest.

The majority of the average weights were also above a year earlier. Barrows

and gilts at all markets except at the National Stock Yards, where there was no change, ranged from 1 to 5 lbs. heavier. Average weights of sows were from 2 to 23 lbs. heavier, the greatest increase in weight coming at Chicago.

U. S. Agricultural Marketing Service reports average weights and prices during January as follows:

	BARROWS AND GILTS		SOWS	
	Jan. 1942	Jan. 1941	Jan. 1942	Jan. 1941
Chicago	238	237	449	426
Kansas City	236	229	420	414
Omaha	246	243	445	446
National Stock Yards	218	218	401	382
St. Joseph	229	225	428	415
St. Paul	221	218	424	422

Average prices for these classes at the six leading markets during January:

	BARROWS AND GILTS		SOWS	
	Jan. 1942	Jan. 1941	Jan. 1942	Jan. 1941
Chicago	\$12.34	\$7.90	\$11.73	\$7.11
Kansas City	11.98	7.61	10.96	6.84
Omaha	11.83	7.88	11.19	6.60
National Stock Yards	12.35	7.82	11.23	6.98
St. Joseph	12.03	7.61	11.02	6.87
St. Paul	12.01	7.58	11.39	6.82

CALIF. LAMB CONDITIONS

Pasture conditions in the major early lamb producing areas of California vary widely; sheep growers in most parts of the San Joaquin valley report range conditions and the development of lambs fully comparable to a year ago. In the Sacramento valley, however, excessive moisture and cold weather the past few weeks have retarded grass and lamb progress. Spring lambs on Imperial valley pastures have developed favorably. The total there at 23,000 is down slightly from last year. Old-crop lambs, estimated at 19,000, were down sharply from the 55,000 on hand there a year ago. There were approximately 23,000 ewes being fattened for slaughter.

GOVERNMENT ESTIMATE OF LIVESTOCK ON FARMS (000 omitted)

January 1	All cattle and calves (a)	Marketable cattle and calves	Sheep and lambs (b)	Hogs, including pigs
1942	74,607	48,304	55,979	60,526
1941	71,461	45,983	54,283	54,256
*1940	68,801	43,444	54,549	60,207
1939	66,029	41,701	51,595	50,012
1938	65,249	41,249	51,210	44,525
1937	66,098	41,810	51,019	43,083
1936	67,847	42,651	51,087	42,975
1935	68,846	42,764	51,808	39,066
1934	74,369	47,438	53,503	58,621
1933	70,280	44,344	53,654	62,127
1932	65,801	40,905	53,902	59,301

(a) Not including cows and heifers kept for milk.

(b) Including sheep and lambs in feed lots for market. Of this year's total of 55,979,000 sheep and lambs, 49,204,000 are stock sheep and the balance sheep and lambs on feed.

*Figures from 1933 through 1940 recently revised.



Packers with an Eye
to profits come to K-M

FORT WAYNE, IND.
DAYTON, OHIO
LAFAYETTE, IND.
CINCINNATI, OHIO
INDIANAPOLIS, IND.
OMAHA, NEB.

DETROIT, MICH.
LOUISVILLE, KY.
SIOUX CITY, IOWA
NASHVILLE, TENN.
MONTGOMERY, ALA.

KENNETT-MURRAY
LIVESTOCK BUYING SERVICE

Order Buyer of Live Stock
L. H. McMURRAY

Indianapolis, Indiana

FRANK R. JACKLE

Broker

Offerings Wanted of:
Tallow, Blood, Bones, Cracklings, Hoofs
405 Lexington Ave. New York City

NEW YORK LIVESTOCK

Livestock prices at Jersey City, February 17, 1942, as reported by the Agricultural Marketing Service were:

CATTLE:

Steers	8.50@ 9.50
Cows, medium	7.25@ 8.50
Cows, cutter and common	6.00@ 7.25
Cow, canners	10.00@11.00
Bulls, good	8.75@10.00
Bulls, medium	7.75@ 8.75
Bulls, cutter to common	7.75@ 8.75

CALVES:

Vealers, good to choice	\$13.50@16.50
Vealers, common and medium	9.00@13.50
Calves, common to medium	8.75@10.00

HOGS:

Hogs, good and choice, 180-200-lb.	\$18.20@18.25
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LAMBS:

Lambs and sheep	\$9.00@12.85
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Receipts of salable livestock at Jersey City market for week ended February 14, 1942:

	Cattle	Calves	Hogs*	Sheep
Saleable receipts	1,575	440	963	88
Total, with directs	8,217	9,380	16,230	49,439
Previous week:				
Saleable receipts	1,302	641	173	268
Total, with directs	7,164	10,114	22,446	39,037

*Including hogs at 31st street.

LIVESTOCK AT 68 MARKETS

January receipts, local kill, and shipments at 68 markets, with comparisons, as reported by the Agricultural Marketing Service:

	CATTLE		
	Receipts	Local slaughter	Shipments
January, 1942	1,321,325	833,600	477,110
January, 1941	1,135,659	707,708	417,896
January	5-yr. av.	1,145,202	710,898
			407,319

CALVES

January, 1942	467,281	282,740	188,268
January, 1941	464,641	275,858	186,923
January	5-yr. av.	483,427	312,479
			169,527

HOGS

January, 1942	3,703,565	2,669,988	1,032,801
January, 1941	3,039,446	2,148,656	890,840
January	5-yr. av.	2,980,857	2,129,124
			841,136

SHEEP AND LAMBS

January, 1942	1,790,963	1,036,274	754,216
January, 1941	1,721,439	1,002,412	714,116
January	5-yr. av.	1,843,000	1,065,005
			740,411

RECEIPTS AT CHIEF CENTERS

Receipts for week ended Feb. 14:

At 20 markets:	Cattle	Hogs	Sheep
Week ended Feb. 14.	197,000	417,000	232,000
Previous week	196,000	443,000	232,000
1941	180,000	433,000	260,000
1940	160,000	511,000	235,000
1939	161,000	365,000	308,000
At 11 markets:	Hogs		
Week ended Feb. 14.	367,000		
Previous week	361,000		
1941	370,000		
1940	451,000		
1939	294,000		
At 7 markets:	Cattle	Hogs	Sheep
Week ended Feb. 14.	156,000	315,000	173,000
Previous week	136,000	320,000	155,000
1941	123,000	317,000	179,000
1940	106,000	399,000	152,000
1939	108,000	254,000	211,000

Careless work in hog scalding costs money. Read "PORK PACKING." The National Provisioner's pork handbook.

LIVESTOCK PRICES AT LEADING MARKETS

Livestock prices at five leading western markets, Thursday, February 19, 1942, as reported by U. S. Department of Agriculture, Agricultural Marketing Service:

Hogs (soft & oily not quoted): CHICAGO NAT. STK. YDS. OMAHA KANS. CITY ST. PAUL

BARROWS & GILTS:

Good-choice:				
120-140 lbs.	\$10.75@11.75	\$10.25@11.50	\$11.25@12.10	\$11.60@12.25
140-160 lbs.	11.50@12.50	11.25@12.25	11.75@12.50	12.10@12.55
160-180 lbs.	12.00@12.65	12.00@12.75	12.55@12.75	12.25@12.75
180-200 lbs.	12.50@12.75	12.65@12.75	12.10@12.75	12.70@12.75
200-220 lbs.	12.50@12.80	12.65@12.75	12.40@12.60	12.50@12.60
220-240 lbs.	12.50@12.70	12.55@12.75	12.25@12.50	12.65@12.75
240-270 lbs.	12.40@12.65	12.30@12.65	12.25@12.50	12.60@12.75
270-300 lbs.	12.35@12.60	12.10@12.40	12.20@12.35	12.10@12.40
300-330 lbs.	12.30@12.50	12.05@12.20	12.15@12.25	12.00@12.25
330-360 lbs.	12.25@12.40	12.00@12.15	12.10@12.25	11.90@12.15

Medium:

160-220 lbs.	11.50@12.50	11.35@12.50	11.25@12.25	11.75@12.50	12.25@12.70
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SOWS:

Good and choice:					
270-300 lbs.	12.20@12.35	12.10@12.20	11.90@12.00	11.75@11.90	12.10@12.15
300-330 lbs.	12.15@12.30	12.00@12.15	11.85@12.00	11.75@11.90	12.10@12.15
330-360 lbs.	12.00@12.20	11.90@12.10	11.85@12.00	11.70@11.85	12.10@12.15
Good:					
360-400 lbs.	11.90@12.10	11.80@12.00	11.75@11.90	11.65@11.80	12.10@12.15
400-450 lbs.	11.75@12.00	11.70@11.95	11.75@11.85	11.60@11.75	12.05@12.15
450-500 lbs.	11.60@11.85	11.60@11.85	11.65@11.85	11.50@11.65	12.00@12.10

Medium:

250-500 lbs.	11.10@11.85	11.15@11.85	11.35@11.75	11.40@11.75	11.75@12.10
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PIGS (slaughter):

Med. & good, 90-120 lbs.	9.75@11.00	8.75@10.50
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Slaughter Cattle, Vealers and Calves:

STEERS, choice:					
750-900 lbs.	13.50@14.75	13.00@14.00	13.00@14.00	13.00@14.00	13.00@14.00
900-1100 lbs.	13.50@14.75	13.00@14.00	13.00@14.00	13.00@14.00	13.75@14.00
1100-1300 lbs.	13.50@14.50	12.75@13.75	12.50@14.00	12.50@13.75	12.50@13.75
1300-1500 lbs.	12.75@13.50	12.50@13.50	12.25@13.25	12.25@13.25	12.25@13.25

STEERS, good:

750-900 lbs.	11.50@13.50	11.50@13.00	11.25@13.00	11.25@13.00	11.25@13.00
900-1100 lbs.	11.50@13.50	11.50@13.00	11.25@13.00	11.25@13.00	11.25@13.00
1100-1300 lbs.	11.50@13.50	11.25@13.75	11.25@13.00	11.25@13.00	11.25@13.00
1300-1500 lbs.	11.50@13.25	11.25@13.25	11.25@12.50	11.00@12.25	11.25@12.50

STEERS, medium:

750-900 lbs.	9.75@11.50	10.25@11.50	9.75@11.25	9.75@11.25	9.50@11.25
900-1100 lbs.	9.75@11.50	10.00@11.25	9.75@11.25	9.75@11.25	9.50@11.25
1100-1300 lbs.	9.75@11.50	9.25@11.75	9.25@11.25	9.25@11.25	9.25@11.25
1300-1500 lbs.	9.75@11.25	9.25@11.25	9.25@10.50	9.00@10.75	8.75@10.50

COWS, all weights:

Good	8.75@ 9.50	9.00@ 9.50	8.75@ 9.25	9.00@ 9.50	9.00@ 9.50
Medium	8.25@ 9.00	8.50@ 9.00	8.25@ 8.75	8.50@ 9.00	8.25@ 9.00
Cutter and common	7.00@ 8.50	7.50@ 8.50	7.00@ 8.25	7.00@ 8.50	7.00@ 8.25
Canner	6.00@ 7.25	6.00@ 7.50	5.50@ 7.00	5.75@ 7.00	6.25@ 7.00

BULLS (Ylgs. Excl.), all weights:

Beef, good	9.75@10.50	9.75@10.25	9.65@10.00	9.50@ 9.75	9.50@10.00
Sausage, good	10.00@10.50	9.50@10.00	9.50@ 9.75	9.50@ 9.75	9.50@10.00
Sausage, medium	9.00@10.00	8.50@ 9.50	8.75@ 9.50	8.50@ 9.50	8.75@ 9.50
Sausage, cutter and com					

PACKERS' PURCHASES

Purchases of livestock by packers at principal centers for the week ending Saturday, February 14, 1942, as reported to The National Provisioner:

CHICAGO

Armour and Company, 2,851 hogs; Swift & Company, 4,328 hogs; Wilson & Co., 5,570 hogs; Western Packing Co., Inc., 1,626 hogs; Agar Packing Co., 6,356 hogs; Shippers, 17,756 hogs; Others, 30,110 hogs.

Total: 29,281 cattle; 3,364 calves; 68,497 hogs; 34,963 sheep.

KANSAS CITY

	Cattle	Calves	Hogs	Sheep
Armour and Company	4,907	363	2,573	4,999
Cudahy Pkg. Co.	3,148	317	1,595	2,036
Swift & Company	2,685	473	2,064	5,535
Wilson & Co.	3,054	649	1,916	4,185
Ind. Pkg. Co.	...	350	...	...
Kornblum Pkg. Co.	1,359	...	...	...
Others	3,405	161	2,426	6,987
Total	18,643	1,963	10,924	24,417

OMAHA

	Cattle	Calves	Hogs	Sheep
Armour and Company	5,539	7,641	5,491	
Cudahy Pkg. Co.	4,286	4,586	6,507	
Swift & Company	4,429	5,133	5,875	
Wilson & Co.	1,985	4,438	1,737	
Others	10,132			
Cattle and calves	10,000	Geo. Hoffman, 73; Lewis Pkg. Co., 574; Nebraska Beef Co., 532; Omaha Pkg. Co., 180; John Roth Pkg. Co., 130; So. Omaha Pkg. Co., 982; Lincoln Pkg. Co., 188.		
Total	19,039	cattle and calves; 30,317 hogs; 19,310 sheep.		

EAST ST. LOUIS

	Cattle	Calves	Hogs	Sheep
Armour and Company	3,511	1,383	6,001	1,698
Swift & Company	4,169	2,739	5,976	2,050
Hunter Pkg. Co.	1,534	22	6,956	734
Heilig. Co.	...	2,954	...	...
Krey Pkg. Co.	...	3,089	...	...
Laclede Pkg. Co.	...	3,429	...	...
Sieloff Pkg. Co.	1,237	...	...	...
Shippers	2,322	2,023	20,785	...
Others	2,807	77	3,129	639
Total	9,214	4,144	29,631	4,482

ST. JOSEPH

	Cattle	Calves	Hogs	Sheep
Swift & Company	3,104	354	6,498	11,488
Armour and Company	3,553	317	5,549	4,750
Others	1,550	26	1,138	220
Total	8,307	697	13,185	15,456

SIOUX CITY

	Cattle	Calves	Hogs	Sheep
Cudahy Pkg. Co.	3,369	42	9,172	4,509
Armour and Company	3,306	89	8,594	3,279
Swift & Company	2,908	40	5,275	3,498
Shippers	3,993	86	9,881	300
Total	13,576	216	32,922	11,596

OKLAHOMA CITY

	Cattle	Calves	Hogs	Sheep
Armour and Company	2,232	431	3,741	1,433
Wilson & Co.	1,900	421	3,789	1,186
Others	248	6	556	...
Total	4,475	858	9,133	2,619
Not including 95 cattle and 1,047 hogs bought direct.				

WICHITA

	Cattle	Calves	Hogs	Sheep
Cudahy Pkg. Co.	1,887	313	3,664	3,184
Wichita D. B. Co.	...	...	101	...
Dunn-Ostby	89	...	568	...
Fred W. Dold	134	...	187	...
Sunflower Pkg. Co.	118	...	187	...
Pioneer Pkg. Co.	435	...	...	...
Excel Pkg. Co.	3,104	...	1,004	123
Total	5,613	313	5,729	3,307
Not including 41 cattle and 2,084 hogs bought direct.				

DENVER

	Cattle	Calves	Hogs	Sheep
Armour and Company	1,015	178	2,210	2,556
Swift & Company	805	63	3,628	7,087
Cudahy Pkg. Co.	556	61	2,013	743
Others	1,279	146	1,541	6,654
Total	3,955	448	9,392	17,040

ST. PAUL

	Cattle	Calves	Hogs	Sheep
Armour and Company	3,983	2,693	7,745	3,504
Cudahy Pkg. Co.	1,036	2,397	...	3,834
M. Rifkin and Son	740	97	...	...
Swift & Company	5,713	3,764	20,815	7,687
Others	4,839	161	...	...
Total	16,310	9,112	28,560	15,025

FT. WORTH

	Cattle	Calves	Hogs	Sheep
Armour and Company	2,144	683	2,071	3,496
Swift & Company	2,150	470	3,124	3,631
Blue Bonnett Pkg. Co.	114	7	1,196	55
Oitz. Pkg. Co.	109	1	737	...
H. Rosenthal Pkg. Co.	13	1	43	25
Total	4,590	1,162	5,461	7,207

CINCINNATI

	Cattle	Calves	Hogs	Sheep
S. W. Gall's Sons	88	36	7,999	350
E. Kahn's Sons Co.	...	445	...	...
Lohrey Packing Co.	1	...	279	...
H. Meyer Pkg. Co.	16	...	2,901	...
J. Schlachter	122	110	...	13
J. & F. Schrot P. Co.	17	...	3,032	...
F. Stegner Pkg. Co.	351	302	...	...
Shippers	257	...	1,563	560
Others	1,857	684	182	174
Total	2,082	1,567	14,433	707

RECAPITULATION†

CATTLE

	Week ended	Cor. week
	Feb. 14	1941
Chicago	29,281	34,596
Kansas City	18,643	16,443
Omaha*	19,039	16,966
East St. Louis	9,214	12,351
St. Joseph	8,307	12,351
Sioux City	13,576	12,291
Oklahoma City	9,133	15,595
Wichita	5,613	4,115
Denver	3,955	4,062
St. Paul	16,310	15,423
Milwaukee	3,474	3,354
Indianapolis	6,753	6,694
Cincinnati	2,682	2,269
Ft. Worth	4,590	4,217
Total	139,159	146,426

HOGS

Chicago	68,497	70,134	73,271
Kansas City	10,924	9,843	11,226
Omaha*	30,317	30,321	36,598
East St. Louis	20,157	15,177	30,540
St. Joseph	15,185	12,942	14,767
Sioux City	9,922	32,497	33,354
Oklahoma City	9,133	9,145	10,844
Wichita	5,729	5,171	6,340
Denver	5,392	11,440	9,750
St. Paul	28,560	42,480	9,075
Milwaukee	3,380	32,452	37,706
Indianapolis	14,433	9,203	18,850
Cincinnati	5,461	8,845	9,470
Ft. Worth	7,207	8,182	4,627

SHEEP

Chicago	34,563	31,789	39,114
Kansas City	24,417	22,023	24,830
Omaha*	10,310	15,627	10,052
East St. Louis	4,452	6,644	4,836
St. Joseph	15,456	14,471	16,736
Sioux City	11,586	11,071	14,469
Oklahoma City	2,619	2,349	1,652
Wichita	3,307	3,618	5,486
Denver	17,040	15,477	15,399
St. Paul	15,025	17,559	15,530
Milwaukee	3,380	1,184	1,350
Indianapolis	...	6,487	6,017
Cincinnati	1,567	9,698	1,219
Ft. Worth	7,207	8,182	4,627
Total	159,959	157,284	170,817

*Cattle and calves. †Not including directs.

CHICAGO LIVESTOCK

Statistics of livestock at the Chicago Union Stock Yards for current and comparative periods.

RECEIPTS†

	Cattle	Calves	Hogs	Sheep
Mon., Feb. 9.	17,635	724	17,379	13,735
Tues., Feb. 10.	6,853	1,501	21,271	10,349
Wed., Feb. 11.	10,645	660	13,305	4,529
Thurs., Feb. 12.	5,620	804	23,609	9,771
Fri., Feb. 13.	1,173	348	14,331	3,948
Sat., Feb. 14.	100	...	5,300	1,000
Total	42,031	4,087	100,695	43,277

*Week's total.

Prev. week.

Year ago.

Two years ago.

†Including 933 cattle, 453 calves, 31,188 hogs and 3,399 sheep direct to packers.

SHIPPMENTS

	Cattle	Calves	Hogs	Sheep
Mon., Feb. 9.	3,299	1	4,776	5,819
Tues., Feb. 10.	1,769	159	4,916	1,550
Wed., Feb. 11.	3,373	23	2,172	252
Thurs., Feb. 12.	946	85	2,674	2,988
Fri., Feb. 13.	742	21	3,219	628
Sat., Feb. 14.	100	...	100	100
Total	10,234	289	17,857	10,810

†All receipts include directs.

FEBRUARY AND YEAR RECEIPTS

	February	Year
1942	1941	1942
Cattle	76,886	63,365
Calves	7,525	25,485
Hogs	195,821	187,666
Sheep	84,425	82,672
Total	332,227	129,368

†All receipts include directs.

WEEKLY AVERAGE PRICE OF LIVESTOCK

Cattle Hogs Sheep Lambs

Week ended Feb. 14 \$12.40 \$2.60 \$11.96

Previous week ... 12.60 12.80 5.85 12.10

1941 ... 11.55 7.75 5.25 10.40

1940 ... 8.95 5.20 4.75 9.80

1939 ... 10.20 7.85 4.85 8.96

1938 ... 7.80 8.20 3.75 7.45

1937 ... 10.40 10.10 5.75 10.50

A.V. 1937-1941 ... \$9.80 \$7.80 \$4.85 \$9.30

HOG RECEIPTS, WEIGHTS AND PRICES

Avg. Rec'd. No. Wt. Top Prices

Ibs. lbs. Top Av.

•Week ended Feb. 14. 100,700 254 \$13.00 \$12.55

Previous week ... 95,557 255 12.85 12.30

1941 ... 101,060 255 25.80 7.75

1940 ... 128,417 245 5.75 5.20

1939 ... 135,185 245 5.75 5.25

1938 ... 82,226 250 9.20 8.20

1937 ... 97,773 236 10.40 10.10

A.V. 1937-1941 ... \$9,500 248 \$8.40 \$7.90

*Receipts and average weight for week ending Feb. 14, 1942, estimated.

CHICAGO HOG SLAUGHTERS

Hog slaughters at Chicago under federal inspection for week ending February 13:

Week ending February 13 ... 87,289

Previous week ... 98,829

Year ago ... 91,153

Two years ago ... 119,620

CHICAGO HOG PURCHASES

Supplies of hogs purchased by Chicago packers and shippers, week ended Thursday, Feb. 19:

Week ended Feb. 19 Pre. week

Packers' purchases ... 48,302 62,237

Shippers' purchases ... 14,270 18,681

Total ... 62,572 80,883

SOUTHEASTERN RECEIPTS

Receipts of livestock, as reported by the Agricultural Marketing Service, at seven southern packing plants located at Albany, Columbus, Moultrie, Thomasville, and Tifton, Ga.; Dothan, Ala.; Jacksonville, Fla., week ended Feb. 14:

Cattle Calves Hogs

Week ended Feb. 14 ... 1,098 553 22,912

Last week ... 2,346 789 28,377

Last year ... 2,210 449 21,095

SLAUGHTER REPORTS

Special reports to THE NATIONAL PROVISIONER show the number of livestock slaughtered at 15 centers for the week ended February 14, 1942:

		CATTLE		
Week ended	Prev. week,	Cor.	Week ended	Prev. week,
Feb. 14	1941	1941	Feb. 14	1941
7,870	13,785		20,281	24,707
1,271	10,849		20,606	18,136
8,305	4,529		20,096	15,939
3,609	9,071		12,021	9,365
4,381	3,948		8,118	7,637
5,500	1,000		10,073	8,846
8,695	43,277		5,967	4,353
5,558	41,149		1,855	1,828
1,080	45,388		2,328	2,228
9,368	45,641		New York & Jersey City	9,706
			Oklahoma City	5,382
			Cincinnati	3,624
			Denver	3,860
			St. Paul	16,311
			Milwaukee	3,380
			Total	152,868
			184,825	116,842
			*Cattle and calves. [†] Not including directs.	
HOGS				
7,857	10,810		87,289	83,823
9,247	8,488		Kansas City	33,533
3,039	9,415		Omaha	36,947
6,738	10,751		East St. Louis	52,880
31,188	hogs		St. Joseph	12,275
			Sioux City	25,781
			Wichita	7,816
			Philadelphia	15,081
			Indianapolis	20,486
			New York & Jersey City	34,100
			Oklahoma City	13,820
			Cincinnati	15,861
			Denver	10,374
			St. Paul	28,560
			Milwaukee	8,408
			Total	391,518
			472,663	420,282
			*Incides National Stock Yards, East St. Louis, Ill., and St. Louis, Mo.	
SHEEP				
4,855	\$ 9.30		Chicago	34,563
5,75	12,10		Kansas City	24,417
4,75	9,30		Omaha	21,097
4,85	8,95		East St. Louis	5,121
3,75	7,45		St. Joseph	16,236
5,75	10,50		Sioux City	11,717
			Wichita	3,307
			Philadelphia	2,187
			Indianapolis	2,710
			New York & Jersey City	5,613
			Oklahoma City	2,619
			Cincinnati	1,207
			Denver	6,132
			St. Paul	15,025
			Milwaukee	1,283
			Total	205,774
			*Not including directs.	198,204
				205,112

CORN BELT DIRECT TRADING

(Reported by U. S. Department of Agriculture, Agricultural Marketing Service.)

Des Moines, Ia., February 19.—At the 19 concentration yards and 11 packing plants in Iowa and Minnesota, hog prices advanced early, but broke later so that butcher hogs ended 5 to 10¢ lower and sows were steady.

Hogs, good to choice:

ES	100-150 lb.	\$11.50@12.35
	180-200 lb.	12.10@12.50
	200-240 lb.	12.10@12.50
	240-270 lb.	12.00@12.40
	270-300 lb.	11.90@12.30
	300-330 lb.	11.80@12.20
	330-360 lb.	11.70@12.05
	Sows:	
	330 lbs. down.	\$11.55@11.95
	330-360 lb.	11.45@11.95
	400-500 lb.	11.10@11.75

Receipts of hogs at Corn Belt markets for the week ended February 19:

	This week	Last week
Friday, Feb. 13	46,800	42,000
Saturday, Feb. 14	44,000	32,500
Monday, Feb. 16	55,000	80,000
Tuesday, Feb. 17	32,400	20,200
Wednesday, Feb. 18	35,000	43,800
Thursday, Feb. 19	30,100	57,500

PURCHASE U. S. DEFENSE BONDS AND STAMPS.

MEAT SUPPLIES AT EASTERN MARKETS

(Reported by the U. S. Department of Agriculture, Agricultural Marketing Service.)

WESTERN DRESSED MEATS

	NEW YORK	PHILA.	BOSTON
STEERS, carcass	Week ending February 14, 1942.....	10,335	2,561
	Week previous	9,691	2,383
	Same week year ago.....	8,325	2,380
COWS, carcass	Week ending February 14, 1942.....	584	1,325
	Week previous	502	1,367
	Same week year ago.....	993	1,354
BULLS, carcass	Week ending February 14, 1942.....	520	115
	Week previous	249	100
	Same week year ago.....	382	183
VEAL, carcass	Week ending February 14, 1942.....	11,532	1,283
	Week previous	8,298	1,441
	Same week year ago.....	9,410	1,125
LAMB, carcass	Week ending February 14, 1942.....	42,045	14,350
	Week previous	55,723	15,531
	Same week year ago.....	45,790	13,706
MUTTON, carcass	Week ending February 14, 1942.....	1,637	116
	Week previous	1,775	177
	Same week year ago.....	8,129	713
PORK CUTS, lbs.	Week ending February 14, 1942.....	3,600,405	511,540
	Week previous	2,973,488	471,426
	Same week year ago.....	2,777,905	462,883
BEEF CUTS, lbs.	Week ending February 14, 1942.....	336,271	.....
	Week previous	216,113	.....
	Same week year ago.....	281,654	.....

LOCAL SLAUGHTERS

	Week ending February 14, 1942.....	1,855	.....
CATTLE, head	Week previous	9,512	1,828
	Same week year ago.....	8,301	1,858
CALVES, head	Week ending February 14, 1942.....	11,058	2,014
	Week previous	10,857	2,284
	Same week year ago.....	11,636	2,724
HOGS, head	Week ending February 14, 1942.....	34,610	15,081
	Week previous	39,462	16,308
	Same week year ago.....	43,655	15,129
SHEEP, head	Week ending February 14, 1942.....	58,158	2,187
	Week previous	56,790	1,963
	Same week year ago.....	57,635	2,290

Country dressed product at New York totaled 5,102 veal, 12 hogs and 199 lambs. Previous week 5,064 veal, 34 hogs and 123 lambs in total to that shown above.

WEEKLY INSPECTED KILL

Hog slaughter at 27 leading packing centers, federal inspected plants only, totaled almost 100,000 fewer swine last week than a week earlier. Total kill for the week at 677,301 head compared with 776,906 head in the previous week. However, the kill was still a little larger than for the same week of last year. Slaughter of other stock showed a slight gain compared with the previous week and all classes, except sheep and lambs, were above the same week of 1941.

Number of animals processed in 27 centers for week ended February 13:

	Cattle	Calves	Hogs	Sheep
New York Area ¹	9,706	11,045	31,903	58,178
Phil. & Balt. ²	3,150	983	29,222	1,373
Ohio-Indiana ³	8,955	3,321	52,059	6,822
Chicago ⁴	28,865	5,318	87,289	52,477
St. Louis Area ⁵	13,019	6,217	52,889	6,922
Kansas City ⁶	16,452	3,339	35,833	20,675
Southwest ⁷	19,218	8,683	37,296	29,049
Omaha ⁸	16,606	698	36,947	25,804
Sioux City ⁹	8,156	111	25,781	14,188
St. Paul-Wis. ¹⁰	23,264	29,270	100,523	21,940
Interior Iowa & So. Minn. ¹¹	16,467	6,056	189,588	42,053

Total 164,556 69,989 677,301 278,970

Total prev. week 158,097 64,315 776,906 270,878

Total last year 126,617 66,581 641,985 288,498

¹Includes New York City, Newark, and Jersey City. ²Includes Cincinnati and Cleveland, Ohio, and Indianapolis, Ind. ³Includes Elburn, Ill., and Chicago. ⁴Includes St. Louis, National Stockyards, and East St. Louis, Ill., and St. Louis, Mo. ⁵Includes St. Louis, Mo. ⁶Includes St. Louis, Wichita, Oklahoma City, and Ft. Worth. ⁷Includes St. Paul, No. St. Paul and Newport, Minn., and Madison and Milwaukee, Wis. ⁸Includes Albert Lea and Austin, Minn., and Cedar Rapids, Des Moines, Ft. Dodge, Mason City, Marshalltown, Ottumwa, Storm Lake, and Waterloo, Iowa.

CANADIAN LIVESTOCK PRICES

	STEERS
Toronto	Week ended Feb. 12..... \$10.50
Montreal	10.50
Winnipeg	9.50
Calgary	10.00
Edmonton	9.50
Prince Albert	9.00
Moose Jaw	8.50
Saskatoon	9.00
Regina	9.00
Vancouver	9.50

	VEAL CALVES
Toronto	\$15.50
Montreal	14.00
Winnipeg	13.00
Calgary	10.50
Edmonton	11.00
Prince Albert	10.00
Moose Jaw	11.50
Saskatoon	12.00
Regina	12.00
Vancouver	11.00

	HOG CARCASSES*
Toronto	\$15.15
Montreal	15.50
Winnipeg	14.15
Calgary	13.95
Edmonton	13.80
Prince Albert	13.95
Moose Jaw	13.75
Saskatoon	13.60
Regina	13.75
Vancouver	14.50

*Official Canadian hog grades are now on carcass basis, quotations from BI Grades; Grade A, \$1.00 premium.

	GOOD LAMBS
Toronto	\$12.50
Montreal	11.00
Winnipeg	11.25
Calgary	10.25
Edmonton	10.25
Prince Albert	10.00
Moose Jaw	10.00
Saskatoon	10.00
Regina	10.00
Vancouver	11.00

Good lambs are \$1.00 premium.

CLASSIFIED ADVERTISEMENTS

Equipment for Sale

GOOD EQUIPMENT SUCH AS THIS IS SCARCE: ANDERSON R.R. OIL EXPELLER; 2-4x6 and 4x6 Lard Rolls; Dopp Kettles all sizes, with and without agitators; Meat Mixers, Grinders, Sausage Cutters; Vert. and Horiz. Tanning Dryers; Refrigeration Equipment and Power Plant Equipment; aluminum kegs; HPM 226C 28-ton Hydraulics Press. Inspect our stock at 335 Doremus Ave., Newark, N.J. Send us your inquiries. WE BUY FROM A SINGLE ITEM TO A COMPLETE PLANT. Consolidated Products Co., Inc., 14-19 Park Row, New York City.

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150-Ton Wolfe, Linde ICE MACHINES (Dersch-Geswein & Neur) cylinders, 11 $\frac{1}{4}$ " x 21 $\frac{1}{4}$ "—direct connected to Elec. Mchy. Co. Synchronous 165 H.P. Motors, 220 V. Eng. Type 100 RPM, 362 Amp., P.F. 100% 40° with D.C. EXCITATION, P.F. 100%, 47 Amp.

COMPLETE WITH Chandeyson Motor Generator Set, 40 H.P., 3/60/220 V. 1740 RPM, 125 Volts, 160 Amp., on Iron Base.

Industrial Buildings Company
1909 So. Rockwell St. Chicago, Ill.

1—500 Ton Hydraulic Press, 30" curb, with steam pump	..... \$1,100.00
1—4'x7' dry cooker, belt drive, condition good	..... 800.00
1—8"x8" Vertical Steam Engine, side crank	..... 50.00
1—#3 Arcol Heating boiler.....	..... 25.00
1—Diebold Fireproof safe, overall ht. 45" x 31" x 30"	..... 45.00

All f.o.b. Green Bay, terms cash with order, and subject to prior sale. Green Bay Soap Co., Green Bay, Wis.

1—200 lb. "BUFFALO" Self-Emptying Silent Cutter with 20 H.P. motor, completely rebuilt. 1—43-B "BUFFALO" Silent Cutter with 25 H.P. motor, completely rebuilt. 1—66-B "BUFFALO" Grinder with 25 H.P. motor, completely rebuilt. W-566, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

BRAND NEW RUJAK Hasher and Washer Number 3B complete with new A.C. motors as per Dope Catalog Illustration. \$1800 F.O.B. BOSTON. W-567, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

FOR SALE: 1—150 H.P. H.R.T. Boiler, 150 Lb. steam pressure, with St. Louis Stoker. Sartorius Provision Co., 2732 Arsenal St., St. Louis, Mo.

Equipment Wanted

WANTED

1—6x6 or 8x8 Vertical Ammonia Compressor, direct connected to steam engine. Advise make, price, condition, age and location. W-518, THE NATIONAL PROVISIONER, 407 So. Dearborn Street, Chicago, Ill.

"SEND FOR YOUR COPY OF MEAT PLANT REFRIGERATION AND AIR CONDITIONING"



Men Wanted

BEEF COOLER MAN who can install boneless beef business. We are an Eastern Packer and kill 300-500 cattle weekly. State experience in detail, qualifications, age, etc. W-565, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

WANTED—Canning Manager capable of handling control of Canned Meat and Sausage Departments. Thorough knowledge of same producing essential. Normal growth of large independent packer presents exceptional opportunity. W-570, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

RENDERING PLANT SUPERINTENDENT. For modern plant in large city. State qualifications, experience. Good salary. W-575, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

WANTED All around slaughterhouse man and beef boner for small Eastern slaughterhouse. Year around work. A real proposition for a conscientious, capable worker. W-578, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

WANTED—Experienced sausage maker. State salary expected. SHEEHAN & CO., Peoria, Ill.

Position Wanted

I HAVE ABOUT 40 years experience. Had charge of 4 failed plants. Can give very good references. Will go anywhere. W-570, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

FOURTEEN YEARS EXPERIENCE in general supervision of small packing house. Thoroughly capable of assuming unlimited responsibilities, including office and sales management, purchase of livestock, abattoir and cooler supervision. W-577, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

Sales, Production Mgr.

With more than 30 years of practical experience. Familiar with Sausage Production, Smoked Meats, Dried, Starch, Sauerkraut, French and Mtg. Spice, claims B.A.E. U.S. Dept. of Agriculture. Efficient in sales direction, and handling of men. Results profitably evidenced in past employment. Records and character unquestionable. Reference and credentials available which will prove satisfactory to most exacting employer. Flexible as to location of employment, east or west. W-579, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

PRACTICAL PACKING HOUSE GENERAL MANAGER is now open for any size plant. Tested Executive and organizer. W-780, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

MANAGER OR SUPERINTENDENT desires connection with medium sized plant. Thoroughly qualified to take complete charge of operations. Handle labor efficiently, turn out quality products. Excellent references. W-781, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

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Hess Stephenson Company
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Chicago, Illinois

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FOR SALE—Plant with cold storage rooms and retail market. Ideal opportunity for Meat Canning, Curing and Sausage Making. Well located in St. Louis. Lot 187 x 125 ft., buildings in good condition. Sartorius Provision Co., 2732 Arsenal St., St. Louis, Mo.

FOR SALE good going small sausage business with a 20,000-lb. weekly capacity. Complete in every detail—this includes machinery and equipment which is in good operating condition and refrigerated trucks located in a good Wisconsin city. Reasonable rent with short or long lease—Reason for selling have other interests. W-568, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

Position Wanted

POSITION WANTED by superintendent; land, shortening, edible and inedible wet and dry renderings, hides, bones, fertilizer, meat scrap. 40 years' experience. W-782, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

WELL QUALIFIED to handle your sausage department complete line luncheon meats, summer sausage and other varieties—understand costs thoroughly—can furnish best of references. W-783, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

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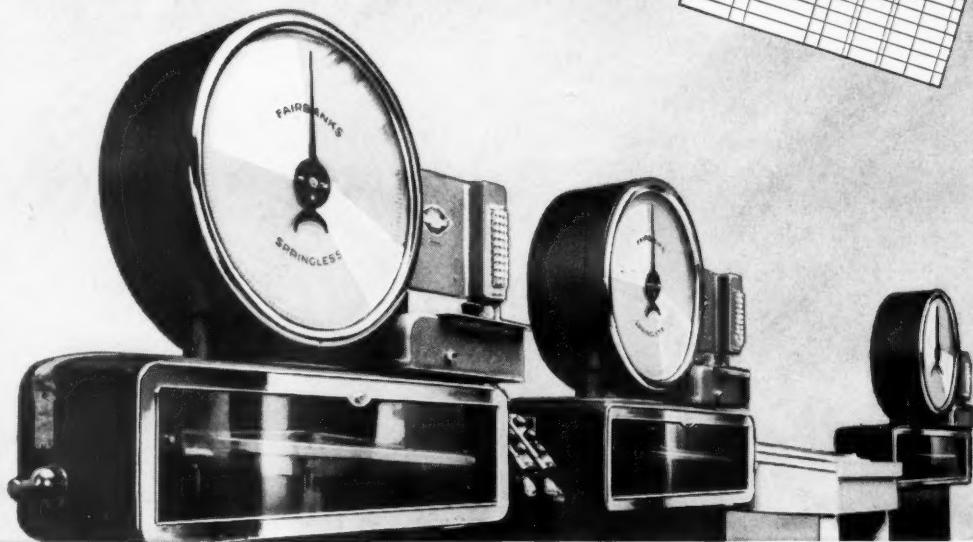
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Scales that see ... and keep books!



It costs money to be inaccurate in weighing—and it costs more money to be s-l-o-w.

That's why, in many of the most modern food processing plants, you'll find a diversity of modern, highly specialized Fairbanks Scales.

Some of these scales weigh while materials are on the move. Others are batching scales with electric eyes which automatically shut off flows to hoppers when pre-set weights are reached. And whatever their type, Fairbanks Scales are often equipped to read themselves and give printed records of weights and related data.

To make errors in weighing well-nigh impossible, to fit weighing speedily into the production flow, to protect alike the buyer, seller, and all whom weighing affects is the aim of this, the most experienced and most modern organization of scale makers.

There are Fairbanks Scales in types for your every weighing need . . . and Fairbanks Scale Engineers are available at your call.

Fairbanks, Morse & Co., Dept. B-206, 600 S. Michigan Ave., Chicago, Illinois. Branches and service stations throughout the United States and Canada.

We Want To Help You

It is our desire to do everything we can to aid in the speed-up of American production. Our scale engineers can possibly suggest new and more efficient use of your present scales or modification which will expand their capacity.

FAIRBANKS · MORSE SCALES



DIESEL ENGINES ELECTRICAL MACHINERY RAILROAD EQUIPMENT WASHERS-IRONERS STOKERS
PUMPS MOTORS WATER SYSTEMS FARM EQUIPMENT AIR CONDITIONERS

FROM START TO FINISH, SWIFT'S SELECTED *Natural* CASINGS GIVE YOU PROFITABLE

SHOP PERFORMANCE!

SALES RESULTS!

✓ SCIENTIFICALLY CLEANED



All surplus fat and tissue are removed from Swift's Selected Casings by thorough scientific cleaning and fatting operations. You are assured of casings that stuff easier . . . make sausages of better appearance.

✓ PRESSURE TESTED



Both water and air pressure are used to inflate and test every inch of Swift's Selected Casings. They are carefully inspected, and holes, tears, and other flaws are eliminated. Perfect casings mean faster production and lower costs.

✓ DEPENDABLE, ACCURATE SIZES



Every Swift Casing is individually measured for diameter . . . correctly graded to size. All lengths are liberal. Swift's Selected Casings are precision-selected, to a fraction of an inch.

✓ The freshness and finer quality of Swift's Selected Natural Casings give all your sausages the appetizing appearance so necessary for bigger consumer sales . . . better profits.



Natural casings have always been the ideal sausage container. And that's one reason why sausage in natural casings is easier to sell—women look for the distinctive natural casing shape.

Natural casings contribute greatly to flavor, too, for they permit more complete smoke penetration; they cling more tightly to the stuffing; seal in and protect flavor; keep the sausage extra tender and juicy.

For the very best results from start to finish, always insist on Swift's Selected Natural Casings. Phone your nearest Swift Company branch house. They'll be glad to serve you.

A COMPLETE CASING VARIETY: Sheep Casings • Pork Casings • Pork Bungs • Pork Middles • Pork Stomachs • Beef Rounds • Beef Middles • Beef Bungs • Beef Weasands • Pork Bladders • Sewed Casings

Swift's Selected *Natural* Casings

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